

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: December 29, 2005, 23:10:51 ; Search time 50.8403 Seconds  
(without alignments)  
3623.140 Million cell updates/sec

Title: US-09-508-967-1  
Perfect score: 12100

Sequence: 1 MATSGSGGCTODEAKHVD.....VNKKKEFEERYPSIDWNI 2228

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA:\*  
1: /cgn2\_6/ptodata/1/1aa/5\_COMB.pep:\*  
2: /cgn2\_6/ptodata/1/1aa/6\_COMB.pep:\*  
3: /cgn2\_6/ptodata/1/1aa/H\_COMB.pep:\*  
4: /cgn2\_6/ptodata/1/1aa/PCTUS\_COMB.pep:\*  
5: /cgn2\_6/ptodata/1/1aa/RE\_COMB.pep:\*  
6: /cgn2\_6/ptodata/1/1aa/backfile1.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	4817	39.8	2182	1	US-08-487-826B-16
2	4802	39.7	3060	1	US-08-487-826B-14
3	3197.5	26.4	2710	1	US-08-568-459A-12
4	3197.5	26.4	2710	1	US-08-487-826B-12
5	3197.5	26.4	2710	2	US-09-210-288-12
6	3197.5	26.4	2710	2	US-10-153-273-12
7	1681.5	13.9	3542	2	US-10-087-013-2
8	1385	11.4	700	1	US-08-568-459A-10
9	1385	11.4	700	1	US-08-487-826B-10
10	1385	11.4	700	2	US-09-210-288-10
11	1385	11.4	700	2	US-10-153-273-10
12	702	5.8	921	1	US-08-568-459A-8
13	702	5.8	921	1	US-08-487-826B-8
14	702	5.8	921	2	US-09-210-288-8
15	702	5.8	921	2	US-10-153-273-8
16	445	3.7	311	2	US-10-087-013-10
17	439.5	3.6	407	2	US-10-087-013-8
18	422	3.5	294	2	US-10-087-013-7
19	418	3.5	1435	1	US-08-568-459A-4
20	418	3.5	1435	1	US-08-487-826B-4
21	418	3.5	1435	2	US-09-210-288-4
22	418	3.5	1435	2	US-10-153-273-4
23	386	3.2	308	2	US-10-087-013-11
24	379.5	3.1	362	1	US-08-568-459A-18
25	379.5	3.1	362	1	US-08-487-826B-18
26	379.5	3.1	362	2	US-09-210-288-18
27	379.5	3.1	362	2	US-10-153-273-18

28	375	3.1	351	2	US-10-087-013-9	Sequence 9, Appli
29	360.5	3.0	411	1	US-08-568-459A-19	Sequence 19, Appl
30	360.5	3.0	411	1	US-08-487-826B-31	Sequence 31, Appl
31	360.5	3.0	411	2	US-09-210-288-19	Sequence 19, Appl
32	360.5	3.0	411	2	US-10-153-273-19	Sequence 19, Appl
33	345.5	2.9	749	1	US-08-568-459A-6	Sequence 6, Appli
34	345.5	2.9	749	1	US-08-487-826B-6	Sequence 6, Appli
35	345.5	2.9	749	2	US-09-210-288-6	Sequence 6, Appli
36	345.5	2.9	749	2	US-10-153-273-6	Sequence 6, Appli
37	315	2.6	1115	1	US-08-568-459A-2	Sequence 2, Appli
38	315	2.6	1115	1	US-08-487-826B-2	Sequence 2, Appli
39	315	2.6	1115	2	US-09-210-288-2	Sequence 2, Appli
40	315	2.6	1115	2	US-10-153-273-2	Sequence 2, Appli
41	315	2.6	1115	6	5198347-6	Patent No. 5198347
42	311.5	2.6	1663	4	PCT-US93-07261-15	Sequence 16, Appl
43	288	2.4	1588	4	PCT-US93-07261-11	Sequence 11, Appl
44	272.5	2.3	2907	2	US-09-698-295-1	Sequence 1, Appli
45	272	2.2	10182	2	US-09-134-001C-3159	Sequence 3159, Ap

## ALIGNMENTS

RESULT 1  
US-08-487-826B-16  
Sequence 16, Application US/08487826B  
Patent No. 5993827  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhuan  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/487,826B  
FILING DATE: 10-SEP-1993  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Israelsen, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121.001CPI  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 16:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2182 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHEICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: N-terminal  
US-08-487-826B-16  
Query Match 39.8%, Score 4817, DB 1, Length 2182;

Best Local Similarity 45.9%; Pred. No. 5.2e-311;  
Matches 1096; Conservative 298; Mismatches 607; Indels 388; Gaps 93;

4 SGSGS---GTOD-----EDAKYILDFGQKVDH--VHGSAKNYSELKGSILAS-1 50  
QY  
11 SGSSSSGKGDJTEYIVSDAKOLDVGEKYVEBKYNDAKKIYIALKGNLNTANGR 70  
Db  
QY 51 LGETAFTVYSMOTESKYTELIEANSKNPKCKDKGNDVDRFS-----VKEQAG 99  
Db  
QY 71 SSETASSIETCTLYVEYERVNGDKRHPCKRDAKNEDVNRFSDTLGGQCTYNNIKDSOQ 130  
Db  
QY 100 YDNKKMKSNGMTGAPFRRLHCNKNFPMNNSNDSSAKHDLLEVCMAAYEBSIKTH 159  
Db  
QY 131 GDNKV-----GACAPYRRLHCDY--NLESIDTSTTHKLLBVCMAAYEBSNLSMTH 181  
QY 160 YPKYDSKYSQSDPFWCTWLARSFADIGDIIRGRDLYLG--NKKKKONGKETEREKLEOKL 217  
Db  
182 YTGORHTMEDSASQULCTVLARSFADIGDIIRGRDLYLGDIYDNEKEQ-----FKLEOKL 235  
QY 218 KEIFKJH-DNIKDKEAQRYNGD-EDNPFYKLRDMWTANRETVWGMATCSKEIDNSSY 275  
Db  
236 KDFKIKHIDVMTKNGAQERYIDDAKGGDFQLREDMTSNRETVWMLALICHAPREANYF 295  
QY 276 FRATCNDTGGPSQTHNKCRCDDKGAAGKPKAGDGVTVTPYTPDYVPOYLWPEEMA 335  
Db  
296 IKTACN-VGKG---TNGQCHC-----TGGD-----VPTYFDVVPQYLWPEEMA 335  
QY 336 EDFCKKKKKLENEKQCRKDKSDPEYRCSNNGVDEQOTISRKQVWAGKCTDCCFAC 395  
Db  
336 EDFCKKKKKLENEKQCRKDKSDPEYRCSNNGVDEQOTISRKQVWAGKCTDCCFAC 395  
QY 396 GSYENMIDNQRKQDPKOK-KYTKELISDGG-----RKRRAVGCTTKYE--GYEKSFEKL 447  
Db  
393 RMYETWINDQKEFLKQRYKYTEISGGSGSKS PKRTGRARSSSSDNDESGSFYKYL 452  
QY 448 KNDGTYTDAFLGLINNEKACDITDGGKINPKYVNSGGVYGGSGTSGASGINDENK 507  
Db  
453 KEVGQVDKFLKTLNKEGICQKOPQV--NEKADN-----VDTNEKYV 495  
QY 508 GTFYASEYQPCPDGVOHKGNGQWERTKYKQKMSLYLYPIKNGVLLKSLKVVNDM 567  
Db  
496 KTFSTELCEBPCPMGGL-KGGPFW--KVKGDKTQSGAKTKYIDPKNTDIPVLYPDSDQ 552  
QY 568 MILKKNWKEFCLTQNSSDGSVSVTTTASGSGNSEKELYDEWCKYKNEYQVKNVQGEV 627  
Db  
553 ONILKTKYKFC-----EKGAPGGQIKK-----MQCY-- 580  
QY 628 EEDDELKAGAGLCTLPKPKKKEVSEAK-----SQNNHADIQKTHDFFYVVAHMLKDS 683  
Db  
581 ----DEHR-----PSSKNNNNCVEGTWDXFTQKQJ--VKSYNVFFMWVHDMHDS 626  
QY 684 IHMRTKRLKSGCI--SDGKTMKCRNGKNCCKDCFEKWKOKETEMKPIKDPFKTOEGI-- 738  
Db  
627 VEMKTE-LSKCLINNTNGNTCANNNKCTTDCGCFKWEKQOEEMAIKDHFGKQTDIVQ 685  
QY 739 -----PEGYFTLELILK---LQFLKEDTEENTENSIDAEAEELKHLQKILKLE 786  
Db  
686 QKGLVSPYQ---VLDLVLKGNLQNLNLIK--DVHGDY-----DDIKIKKL--LD 729  
QY 787 NENNLAVNAGTEQKTLMDKLNHELNDATKCK---DCPLPEEKSGRSDSPDLFI 842  
Db  
720 BEDAVAVVLGGKONTTI-DKLOHKEQAEOCKQOECEKKAQOESGRSARETREDERT 788  
QY 843 PRP-----EKEKEDBENDDDEYRDEDEKAKETTESGATUTTTSLDV----- 885  
Db  
789 QOPADASAGVEEBDDDDYDEDEDDDVQEEBSKBE--EGTVIEVTEVTEVETTEQ 846  
QY 886 -----CPIVGKYLTKDNESLDQASLKY--GGNNSRLGMRCTVPSGEPFTSSDKNGALCV 938  
Db  
847 BGVCACDILVGK-LFEDDKSLKACGLKTPGSGKXKFPMMKCVTPSGVSTATSGKGAICV 905  
QY 939 PPRRRRLYIKKIVDMATKTESPOASGSEASTSGSTTPPDK--EALIKAFVESALLET 995

906 PPRRRRLYVGLSOMAR-----GDETTVESEARSASQSESEKLTAFIESALET 959  
QY 996 FFLMHRKYEEKKAVA--OEGAGHGLPRVEBSPEYDEPDKLE--GKIPDGLRQMFYTLGD 1053  
Db  
960 FFLMHRKYEEKKAPATODGAGLGVSLPEPSPPGDPOTLOQOTGVIPDFLRQMFYTLAD 1019  
QY 1054 YRDLFSGSNDTT--SVGKDPSSSNDNLKNIYLLASGTSOERKKN-----KYEIGNFR 1108  
Db  
1020 YKDLISGSDTSTTQKQTPSSSNDNLKNIYLLASGTSOERKKNQIOAKIKKILNGA 1079  
QY 1109 KCSTERAPMLVSHR--QTMWBNNGKTYIMHGVNVCALTSKDIKAKVEKK--DQKIENPENLW 1166  
Db  
1080 TSGVPYTKNSVKTPOQTWMENTAKOIMNAMVCLTYKENDARQTSKIGQNMOLKXALM 1139  
QY 1140 DEANKNTPREKYQYTNVKLBSG-----AKSNDTIQPLTKNFVEIPEFRMLHE 1190  
Db  
1225 WGSFCEBRKRLKQIVDCKVENGDVGRCSGOEACDSISTHXYSTVPSFNCQCGKHC 1284  
QY 1191 WGSFCEBRKRLKQIVDCKVENGDVGRCSGOEACDSISTHXYSTVPSFNCQCGKHC 1248  
Db  
1285 SSYKWTERRKKIEFHQSNAVGOQKTD-----ATRNNGNTFDKEFKLTETWPDAA 1335  
QY 1249 RLYTWIEKKKTEYKQKQKAYEOKSNYENBQDKCQTQSNNNA--NEFRTLGASPTAA 1306  
Db  
1336 KFLERLXNGPCKTNKEY-GGDD--IDFEKDSKTFQHTHEYCGPCPKFTNCONGCVSGL 1392  
QY 1307 EFLQKL--GSCIKNDNGYENGDNKIDPKNPDKTEKHAISCPCITGVKCGNGHC--VQSA 1363  
Db  
1393 NG-NCDDKSIDAEIAKMSSTTDVVMRVSNDNTNFE--GDLLKACQAHANFKGIRK 1449  
QY 1364 NGKCKKNNK-ITADIDNKTDPNGINIEVVSDDSTNFEHLGD-----CASSGIFKGIK 1417  
Db  
1450 DVMKGYVCGVDIC--BOTNINERTDKEYIQLALFKRWENLEEDYNKINDKISCIK 1507  
QY 1418 DEMKCANVCGVDITLLEKIKINQGBGDKKITYMELLKRWLEFLEEDYNRIRKKIKYCTK 1477  
Db  
1508 KGBSGKINGCEKNSKLEKWIIEKIAEWENIKKRFNDQYBNKQDPDYNKSLLEBLPK 1567  
QY 1478 KEDCKCIKG-----CIEKVVQEKTKEMQKINDTYLEQYKND-----GNLTNLFQ 1525  
Db  
1568 IAVVNDQDNYKLC-----VFENSGKCTLISNTQNNKENDALDCKLXGLVAKXCPGKS 1623  
QY 1526 FOYRTEFNALIKPCDGLDQFTTSCGLNSTDSQNNNDLVCLINKLOKKSISECKQHS 1585  
Db  
1524 GEKQSDC-----KEP---PLPDEBDQNEBNTLEPPKCPPTTOPREKGE--TCG 1671  
QY 1586 GQOTPCDNLSSLSKESITLVEDVDYERQNP-EKRVQPKFCPDMKPKKENDSEVGTG 1644  
Db  
1672 NKEBKQEKKESEEPAKESGPAABAP--TAESEETETN-PPBPGTGPAAPSTPA 1728  
QY 1645 GDEBK--KYVDSYIBQKEEBAASAPESPULTREAPKESBNVPKP----- 1690  
Db  
1729 PPTPDTPPP-----LAPQADEP-FDSTILOTTPFGVALLAGSIAFLFKKTKASVGN 1781  
QY 1691 -----PPPKRRRIKTRNVLDHPAVIIPALMSSTIMWSIGGPAFTFYLLKTKSSGN 1744  
Db  
1782 LFOILQIPKSDYDIPTLKSSNRVYIPIVSDRYKGTITYIMEGSD-EDKVFAMSDTTDVS 1840  
QY 1745 LFOILQIPKSDYDIPTLKSSNRVYIPIVSDRYKGTITYIMEGSDGDEKRYAMSDTTDVS 1804  
Db  
1841 SESSEBELINDIIVPSPKXYKTLIEVVLBPSGNNTTASGNTPSDTRNDIOND--GIP 1897  
QY 1805 SESSEBELINDIIVPSPKXYKTLIEVVLBPSGNNTTASGNTPSDTRNDIOND--GIP 1853  
Db  
1898 SS-----KITDENKQKKEPISNMLQNDPNDVPDYTSAGNSTYNTNTTTSRRHVDNNTN 1953  
QY 1854 NSDTPPTDEEMQLOKDFISNMLQNTONTNPN-----ILHADVNNTH 1898  
Db  
1954 TTMSRDNNEBULLPSIHDGGLYSGEESYV-----NMVN-----SKNDIPI 1996  
QY 1899 PTMSRHNDQKPFMISHDRNLFSGEETNYDMFNSGNPINIISDTSMSDLSNNHSPY 1956

QY 1997 NRDNVYSGIDLINDSLGSKPIDYDEVLRKRENEFGTENTKRTSTON--VAKTTSD 2054  
 DB 1959 NDKNDLVSGIDILINDALSQNH-IDYDMLRKRENEFGTQHPKNTSNVYVOTSSDD 2017  
 QY 2055 PIHQLELFAHKLDRHDMCEKKNKEDILNKLKEENKKNINNSGKTYSNDRSHNV 2114  
 DB 2018 PITNOILFHKMLDRHDMCEKKNHRLPLKELM--ENETHSGDI--NSGIPSGNHV 2073  
 QY 2115 LNTVSVIOLDMDNPKTKNITNMDTNOQKSTMDTILDLLEKNDPYYVDYEDDIYHNV 2174  
 DB 2074 LNTVSVIOLDMDNPKTKNITNMDTNOQKSTMDTILDLLEKNDPYYVDYEDDIYHNV 2132  
 QY 2175 DVEKSMODIYVDHNNVTSNNMDVPTKHEIKNNIVNNKGEIPEEYPIIS 2223  
 DB 2133 NDDKASBDHIMDKHKNMNNNSDVFTNVOIEMNVLIN--QELLONEYPIS 2180

## RESULT 2

US-08-487-826B-14  
 Sequence 14, Application US/08487826B  
 Patent No. 5993827

## GENERAL INFORMATION:

APPLICANT: Sim, Kim L.  
 APPLICANT: Chitnis, Chetan  
 APPLICANT: Miller, Louis H.  
 APPLICANT: Peterson, David S.  
 APPLICANT: Su, Xin-zhaun  
 APPLICANT: Wellens, Thomas E.  
 TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
 TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
 NUMBER OF SEQUENCES: 45  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Knobbe Martens Olson & Bear  
 STREET: 620 Newport Center Drive 16th Floor  
 CITY: Newport Beach  
 STATE: California  
 COUNTRY: US  
 ZIP: 92660

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patentin Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/487, 826B  
 FILING DATE: 10-SEP-1993  
 CLASSIFICATION: 435  
 ATTORNEY/AGENT INFORMATION:

NAME: Israelien, Ned  
 REGISTRATION NUMBER: 29, 655  
 REFERENCE/DOCKET NUMBER: NIH121.001CPI  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (619) 235-8550  
 TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 14:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 3060 amino acids  
 TYPE: amino acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: protein

US-08-487-826B-14

Query Match 39.7%; Score 4802; DB 1; Length 3060;  
 Best Local Similarity 36.2%; Pred. No. 8,6e-310;  
 Matches 1156; Conservative 277; Mismatches 631; Indels 1128; Gaps 83;

QY 4 SGGSGGTODEDAKAVLDFGQKVDHVEHGAQNVYSLKSLASLIGETAFYTKSMQT 63  
 DB 12 AAGGDIDEDSAKHFDRIGKVDVYKVEBAKERKGLQGRIS-----EAKFKNESDP 65  
 QY 64 ES-----KYTELIEANSKRNPK-----KDGKNDVDRSVEQAGYDKKQKC 107

DB 66 QTPEDPCDLHKKHTNTVTTN--VINPCADRSVDPRSDVSGQCTHNRKDSQGGNKG--- 121  
 QY 108 SNGMTCAPEPRHLHCKNKNFPMNSNDSSKAKHDLAEVCMAKYEGSIXTHYKYSKY 167  
 DB 122 ---ACAPYRLAHVCDONLEQIEPIKITNT--HNLVLDVCMAKKEGOSITODYPRYQRTY 176  
 QY 168 PGSDPFCMTLARSFAIDIGILIRGRDYLGNKKKKONGKETEREKLDEKLKELPKLHDN 227  
 DB 177 GDSFSQCTMLARFAIDIGILIRGRDYLGNPPQIK-----QRQLENNKLITIGKLYEK 231  
 QY 228 LKDKAQRKRYNGDEDPNFYKLRDMDWTANRETVGAMTCSKELDNSSYFRATCDTGGCP 287  
 DB 232 LKGAEA--RKG--NDPEFKLRDMDWTANRETVGAMTCSKELDNSSYFRATCDTGGCP 281  
 QY 288 SQTINKRCQDKKAKANAKPRAGDGDVITYPTVYDQVYQVYRMPREMAEDCRKKKKLE 347  
 DB 282 ERTGYCRCDNDQ-----VPTVYDQVYQVYRMPREMAEDCRKKKKIK 325  
 QY 348 NLEKQCRGKSDRYRCSRNGYDCEQTI SRKGYRMRGKGTDCFPACGSYEMNIDNRK 407  
 DB 326 DVKXNCKGKEDKDRICSRNGYDCEQTI SRKGYRMRGKGTDCFPACGSYEMNIDNRK 385  
 QY 408 QPDKQ--KRYTKEL-----SDGGRKKRAVGG--TRYEGYKSYFEKLNKDYGYTDAF 458  
 DB 386 QPDKQKKKQYBEIKYENGASGSGRQKRDAGTTTNYDGEKKFDELANKSEYRTVDKF 445  
 QY 459 LGLLNKAKCDITD--GKTNFKEVNSGGGVGGSGTSGAGSTDENKGTYSRYC 516  
 DB 446 LEKLSNEBITKTVDEBEGTIDFNVN-----SDSTSGAGTVNSESQGTYSRYC 496  
 QY 517 QPCPDGVQ--HKGG--NOMERKTKVKKMRSKLYK---INGKVVLLKSLKLVKDMMI 569  
 DB 497 QPCPYGVKKNNGSGSNEMERKN--GKCSGKLYPEPDEGTTITILKSGKHDD--- 552  
 QY 570 LKKMKFECILTONSSDVSQSVTTGASGNSSEKELYDEWKYKHNVEQVNVQGEVEE 629  
 DB 553 IEBKLNKFCDEKNGDTINSQSGSGTGGSGGNGQELYEBWKYKGEDEVYKVGHDEDEE 612  
 QY 630 DDBELKAGAGCICLPNPKKQKVEBAKSONHADIOCTFHDFFYVVAHMLKDSIHMTK 689  
 DB 613 DYENVKAGGICILKQKKNKEBEGNTSEKPEDEIKTFNPFYVVAHMLKDSIHMTK 671  
 QY 690 RLKCSISDGKTMKC--RNGCNKKGDCPEKVVQKETEMKPIDHFKTOGIEGYYFTLLE 748  
 DB 672 KLRCLONGNRIRKGNKKNNDCECFKMTIQKDEMGKLYQHTKQNIKRGSSDNTAE 731  
 QY 749 LI-----LKLQFLKED---TEENTENSLDAEAEELKHLQKILLENENNLAIV 793  
 DB 732 LIPEHDHYVLQVNLQEEFLKQSDSADASEKSENSLDABEABELKHLRIIEEDNQEAS 791  
 QY 794 VNAG--TEQKTLMDKVLNHELNDATKCDPLPEEDK----- 828  
 DB 792 VGGGVTEQKNIMDKLNVKDEADLCLEIHDEEBEERKKGDNCEIEGENFRYNPCSGE 851  
 QY 829 ----- 828  
 DB 852 SGNKRYPLANKVAYQMHAKKTOLASRAGSALRGDISLAQFKNGRNGSTLKQICIKIN 911  
 QY 829 -----SRGSADPS-----PDIFIP----- 843  
 DB 912 ENYSNDRKNGSGCCTGKDGHGVRMRIGTEMWENISGKQTSYKVNVLPRRREHMTSN 971  
 QY 844 ----- 843  
 DB 972 LENLDVGSVTNKDKASHSLGDVOLAATDAEILIKYKQNNIQLTDPLOQKQEAACR 1031  
 QY 844 ----- 843  
 DB 1032 AVRYSPADLGDITNGRDMWEDKSSDTMETRLITVFNKIKKKGIGIKDNPRTYDDESKCP 1091  
 QY 844 ----- 843

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Db 1092 AYKKLRADWBEANRHOVRANKCATKGIIICPGMPVDYIIPQRLRMTEMAEYCKAOSQE 1151
QY 844 ----- 843
Db 1152 YDKLKICADGMSKDGKCTQGDVDCGCKAACDYKEIEIKMBOWKISDKYNLYLQ 1211
QY 844 ----- 843
Db 1212 AKTTSTNPGRTVLGDDDDPDYQOMVDFLPIHKAIAAVLVRAAGSPTEIAAAPTIPY 1271
QY 844 ----- 843
Db 1272 STAAGYIHQEIYGCCQEQOTQCEKKGATSTTKENKEYTFKQPPPEYATACDCINRS 1331
QY 844 ----- 850
1332 QTEBPKKKEENVESACKIVKILBGNRTTVEGCPKESYPMDCXKNIDISHGACMP 1391
QY 851 ----- 863
1392 PRQKLCUYIAHESOTENIKTDNLKDAFIKTAABFTLSWQYKSKNDSBAKILDRGL 1451
QY 864 ----- 875
1452 IPSQFLBSMMYTFPGDYRDI CLANTDISKQONDVAKAKDKIGKFPSSKSGSPGSLSRQEMW 1511
QY 876 ----- 879
1512 KTNGEIKKGMICALTKYVTDTDNKRKIKNDYSYDKVNOSONGNSLEBPAKQFLRM 1571
QY 880 ----- 879
1572 IEMGEFCAERQKOKENIKKACNEINSTQOCNDAGHCNOACRAYOEYENKKKFPSCOT 1631
QY 880 ----- 879
1632 NNFLKANVQODPEYKGYEYQVQPIQGNELYLQCDNNKCSMDGNVLSVSPKEXPF 1691
QY 880 ----- 903
1692 GKVAHKEPKDCOCYQKGVPSIPPPPPYQOPQBEAPYGTVDVCSIV-KTLFMDTNNPDA 1750
QY 904 CSLKYGNNRLGMRCV---TPSGEPTT---SSDKNGAICVPPRRRLYIKIYDWMARKT 957
Db 1751 GGLAKY-GKTAPESWKCIPSDTSGAGATYKSGSDSGISCIPIPRRRRLYVGLQDMATL 1809
QY 958 ESPQASGEASSTSGSTTPPOSKEALLKAFVESAAIEFPLMHRKKEKKVAOAGAGH 1017
Db 1810 --PQEBGAAPSHSRA-----DRLNAFIQSAAIEFPLMDRYKEKKPQG-DGSGQA 1858
QY 1018 LPRVEE--GSPEDPEDEK-LKEGKIPDGFRLQMFYTLGDYRDLIFSGSNDTTSYSKOTPS 1074
Db 1859 LSQILSTYSDBEDPDKLQNGKIPPPFLRMFTLGDYRDLIVHGN--TSDSGNTNG 1916
QY 1075 SSNDLKNIVLASSSTEOERKKNKYEI--KXRRKSTERSAANLVSHPTWENNGK 1132
Db 1917 SNNN--NIVLEASGNKEDMOKIOEKIRQIPLKNGSTPLVPKSS--AQTPDKMNEBAE 1970
QY 1133 YTHHMMVCAIT-----SKDKIAGVEKKKQKJENPENLME-----ANKK-----PKP 1175
Db 1971 SIKWMICICALYTEKKNPDTISARGD--NKLKEDDEVIEKFGFSGTADHGAISTTGTYYK 2027
QY 1176 PQYQYTNVLDENSGTSPRTTQTOASSDNTPTTLTHFVAKPTYFRWPEBGEFPCREKK 1235
Db 2028 TOYDIEKYLTEDTSG-----AKTPSASDTP-LLSDFVLPRPYFLIEBEGNFCCKKKH 2081
QY 1236 RLKQIKVDCKVENGVG-----RCSGDGACDSISTHDYSIVPSFNCPCGKHCSSY 1287
Db 2082 KLAQIKHECKVENEGSGSRGIGITRQYSGDGEACNEMLPKNDGTVPDLLEKPCACRCSY 2141
QY 1288 RMYIRKKEIEFHQKSNAYGOQKTDATRRNGNTFDSEFCITLETWDAKFLERLKGCK 1347
Db 2142 RWMIESKGKEFEKOKAYBOOK-DKCVNGSNHNGHFCETLITSSKADFLKTL--GPCK 2198

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QY 1348 TNKEYGDDIDIFEXDSTFQHTTEYCGPCPYFKTNCQNGCVSGLNGCQGDSDAKET 1407
Db 2199 PNNVEGKTIIPD---DDKTFKHATKDCDPLKFSVAVCKDECD-NSKGTDCRRKNSIDAKTI 2254
QY 1408 AXRRSSITVDVVRSDNDTTFBGDDLKDACQAHNIFKGIKRDYWKVCYGVYICBOTN 1467
Db 2255 ENGVDSIV-LBMRVSASKSGFNGDGLNACRGAGIEGIRKDEMKRANVCYGVYICPEN 2313
QY 1468 INERTDKEYIOIRALFKRWENFLBDYNKINDKISHCIRKGBSGKINGCENKSKLEK 1527
Db 2314 VNGSAKXKHIIQIRALYKRWVEYFEDYNNKIKHISRIKNGEISPCI---KN--CYEK 2367
QY 1528 WIEKIAWENIKKRFPNDQIBNKDQPRYNKXSLBELPKIAVNDQDNVTKLCVFENSK 1587
Db 2368 WVDOKRKEWKEITERFNDQYKNDNSDDNVSFLETIIPQITDANAKNYIKSKFNSNC 2427
QY 1588 GCTLISNTO--NNKENAIDCMLKCLGVKAKNCPGK--PSGEKQSDCKEPPPLPDE--- 1639
Db 2428 GCSASANEONKNGEYKQALIDCMLKCKDKIGCECKKHQTSDBTESDTPPOQTLEDTLD 2487
QY 1640 ---EDQNPBENTLEPPPCFPT--TOPPEKGETCGNKKEKDEKKESEEPKESGP 1694
Db 2488 DDIETBAKKNMM--PFCENVLKTAQDEGG--C-----VPAENSREPAATDSGK 2535
QY 1695 AAEEPAFTASEETETNPPPPPGTGPAPSTPAP---PIPDTPPLRPOADEFPDSTIL 1751
Db 2536 ETPEQTPVLKPEEBAVPEPPPP-----PPOEKAPAPIPOQPPPTQULLDNHVLATL 2599
QY 1752 QT-TIPPGVALALGSIAPLFLKKTAKASVGNLFOILOIPKSDYDIPILKSSNRYIPVSD 1810
Db 2590 VTSTLANSVGIGAPTFYFLKKTAKSSVGNLFOILOIPKSDYDIPILKSSNRYIPTSG 2649
QY 1811 RYKGGTYIYMEGDSDEDKYAFMSDTPDVTSSESEYEBELINDIYVPSPKYKTLIEVLE 1870
Db 2650 KYRGKRYIYLEGDSGDS--GYTHYSDITSESEYEBELINDIYVPSPKYKTLIEVLE 2708
QY 1871 P-----SGNNTTASGKNTPSDTRNDIONDGIPSSKITTNEMWOLKEEPISN 1916
Db 2709 PSGNNTTASGNNTTASGNNTTASGKNTPSDTRNDIONDGIPSSKITTNEMWOLKEEPISQ 2768
QY 1917 MLQNOPNDVPNDYNSGNSSTNTNITTSRHVNDNTTMSRDMESNLPLSIHDGNYL 1976
Db 2769 YLQSEPTNERN-----MLGYNVDNNHTFTSHANVEEKFPIFMSIHDRNLF 2813
QY 1977 SGEESYVNV-----NMVN-----SMNDIPINRDNNVSGIDLINDSLSGKPI 2019
Db 2814 SGEESYVNDMFNSGNNPINISDSTNSMDSLTGSNNHSPYNDKNDLYSGIDLINDALSGNH-I 2872
QY 2020 DIYDEVUKRKENELFGTE-NTKRTSTQNVAAITNSDPIHNLLELFHKWLDHRMCEKWK 2078
Db 2873 DIYEMUKRKENELFGTKHKTHTNTYNVAKPARDDPTNQINLFHKWLDHRMCEKWK 2932
QY 2079 NKEDIINKLKEEMKENINNSGKTYNSDNKSHHVLNTDVSIQIDMDNPKTKKEITNMD 2138
Db 2933 NNHERLPLKXELM--ENETHSGDI--NSGIPSGHVLNTDVSIQIDMDNPKTKKEITNMD 2988
QY 2139 TNQDKSTMDITLDDLEKXNDPYVDFEYEDIIYHDVVEKSSMDIYVDHNNVTSNNMDV 2198
Db 2989 TNPDKSTMDITLDDLEKXNEBPIYYDFEYEDIIYHDVVEKSSMDIYVDHNNVTSNNMDV 3048
QY 2199 PTKKHIEKNIVN 2210
Db 3049 PTKKHIEKNIVN 3060

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RESULT 3
US-08-568-459A-12
; Sequence 12, Application US/08568459A
; Patent No. 5849306
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chitnis, Chetan

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QY 864 -----DEETAKE-----TTBGS----- 875
DB 1454 IPSQFLRSMYTFGDYDICIANTDISKONDVAKAKXIGKFKFSKDSKSPSGLSROBWW 1513
QY 876 -----ATDT----- 879
DB 1514 KTINGPELWKMLCALTKYVTDITDNKRKIKNDYSYDKYNQSGNPSLBEFAAKQOFLRMW 1573
QY 880 ----- 879
DB 1574 IEMGEFCAEROKKENI1K0ACNEINSTQCNDAKHCRCNAQCRAYQEVENKKEKKEFSQOT 1633
QY 880 ----- 879
DB 1634 NNFLKANKVQPODEYKGYEKDGVQPIQNEBYLLQCKDNKNCSCMDGNVLSVSPKKEPF 1693
QY 880 -----TSLVCPITVGVLTUKDNBSI0DA 903
DB 1694 GKVAHKYPEKCDYQGRVPSIPPPPPVQPOPEAPVTVVQVCSIV-KTLFKDNNFSDA 1752
QY 904 CSLKYGNNSRLGNRCV---TPSGEPTT---SSDKNGAICVPPRRRLYIKKIVDMATKT 957
DB 1753 GGLKTY-GKTAPSSMKCIPSDTKSGAGATTGSGSDSGSICIPRRRLYVYGLQEMATL 1811
QY 958 ESPQASGEASSTGSGTTPPDSKALKAIVESAIIETFLMARIYKERRKAVAOEGAGHG 1017
DB 1812 --POEGGAAPSHSRA-----DDLRNAFIQSAAIETFLMDRYKEKKEKQOQ-DGSOQA 1860
QY 1018 LPRVBE--GSPVYPEDEK-LKEGKIPDGLKQMFLLDGYDILFSSGNDOTYSKDPSS 1074
DB 1861 LSQLSTYSDEDEPDLLQNGKIPDFLKMFTLLDGYDILVHGGA--TSSGNTNG 1918
QY 1075 SSNDLAKNIVLLASGSTEQERKNNKYEI--KNFRKCTERSAPNLVSHQPTWENNKG 1132
DB 1919 SNNN---NIVLEASGNKEDMKIQKIEQILPKNGGTFLVKKSS---AQPTDKMNNHAE 1972
QY 1133 YIWHQWCAIT---SKDKIAKGVKPKQKIENTENLMD-----ANKK-----PKP 1175
DB 1973 SIMKMICALTYTEKNPDTSGARDE--NKIEKDEVEYEKFGSTADKGTASTPTGTYYK 2029
QY 1176 POYQYTNKLDENSGTSPRTQTOASNDNTPTLLHFKRPTVYPMFEMESFCERKX 1235
DB 2030 TOYDEKXKLEBDSG-----AKTPASSDTP-LISDFVLARPPYFYLEWQGNFCCKKX 2083
QY 1236 RLKQIKVNDCKYENGVDG-----RCSGDEACDSISTHDYSYVPSFNCGCGKHCSSY 1287
DB 2084 KLAQIHECKYBENGSGSRGGITQYSGDEACHEMLPKNDGYVPLDEXSCAKPCSSY 2143
QY 1288 RKMIERKKIEFHKQSNAYGQKTTDATRNNGNTFDKEFKTLETWPAKFLERLKNQPK 1347
DB 2144 RKMIESKKEFEKQKAYEQK-DRCVNGSNKHGNGFCETLLTSSKADFLKTL--GPCK 2200
QY 1348 TNKEVGGDDIDPEKSKTFQTHTEYCGPCPKFTNQNQNGCVSGLANGCDODKSIDAEI 1407
DB 2201 PNNVKGKTIPTD---DDKTFKHKDODPCLKFSVNCCKDECD-NSKGTCCRNKNSIDAVDI 2256
QY 1408 AKMRSSITDVVWRVSDNTNTPFSGDDLKDACOHANI1FKGIRADVYKCGVGVDCIOTN 1467
DB 2257 ENGVDSTV-LEKRVASDKSGNGDLENACGAGIIFEGIKDEKCKANNVCGIYVCKREN 2315
QY 1468 INERTDGKEYIQIRALFRKVENFLDYNKINDKISHC1KKGEGSKINGEKNKSKLEK 1527
DB 2316 VNGEAKGHIIQIRALVYKRWVYFEDYNKIKGKISHRIKNGEISPTI---KN---CYEK 2369
QY 1528 WIEKIIAEMENIKGFNDQYENKQDPVNVKS1LELLPKIAVVDONNV1KLCVFNBSK 1587
DB 2370 WVDQKRKMKELITERFKQYKXNDSDDNVRSFLETL1POLITDAAKKAVIKLSRFGNSC 2429
QY 1588 GCTLSINTO--NNKENDAIIDCMLKTLGVYAKKCPK---PSGKOSDCKEPPPLDE--- 1639
DB 2430 GCSAANBONKNGEYKDAIDCMLKTLKDKIGCEKKNHQTSTBESDTPQPTLEDETLID 2489
QY 1640 ---EDONPBENTLEBPKFCPT--TOPPEKGETCGNKEKXDEKESSEBPAKESGP 1694

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DB 2490 DDIETBAKNNM--PKICENVLTKAQDEBG--C-----VRAENSEEPAIDSGK 2537
QY 1695 AAEPAFTASEBETETNFPPEPOTGPAAPSTPAP---PPDTPPLRPQADEPPTSTIL 1751
DB 2538 ETPEQTPVLKEEBAVDEPPPP-----PQEKAPAPAIPOPPPTPTQLDNPHVLTAL 2591
QY 1752 QT-TIIPGVALAGSIAFLFK 1772
DB 2592 VTSTLMSVGIGPATFTFYFLK 2613

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RESULT 4
US-08-487-826B-12
/ Sequence 12, Application US/08487826B
/ Patent No. 5993827
/ GENERAL INFORMATION:
/ APPLICANT: Sim, Kim L.
/ APPLICANT: Chitnie, Chetan
/ APPLICANT: Miller, Louis H.
/ APPLICANT: Peterson, David S.
/ APPLICANT: Su, Xin-zhaun
/ APPLICANT: Wellens, Thomas E.
/ TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
/ TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
/ NUMBER OF SEQUENCES: 45
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Knobbe Martens Olson & Bear
/ STREET: 620 Newport Center Drive 16th floor
/ City: Newport Beach
/ STATE: California
/ COUNTRY: US
/ ZIP: 92660
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patentin Release #1.0, Version #1.25
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/487,826B
/ FILING DATE: 10-SEP-1993
/ CLASSIFICATION: 435
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Israelien, Ned
/ REGISTRATION NUMBER: 29,655
/ REFERENCE/DOCKET NUMBER: NIH121.001CP1
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (619) 235-0176
/ TELEFAX: (619) 235-8550
/ INFORMATION FOR SEQ ID NO: 12:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 2710 amino acids
/ TYPE: amino acid
/ STRANDEDNESS: single
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/ HYPOTHEICAL: NO
/ ORIGINAL SOURCE:
/ ORGANISM: Plasmodium falciparum
US-08-487-826B-12

Query Match 26.4%; Score 3197.5; DB 1; Length 2710;
Best Local Similarity 30.6%; Pred. No. 3.9e-203;
Matches 834; Conservative 244; Mismatches 569; Indels 1075; Gaps 74;

QY 4 SGGSGGTODEBAKIVLDFQGVKXVDEVHGEAKNVVSELKSGLSLASTIGTAFTVKSQT 63
DB 14 AAGGDDIDESAKRMFRIGKDVYDKVEAKERKGLQGLS-----EAKFERNSDP 67
QY 64 ES-----KYTELIANSKRNPCK-----KDGKNDVDRFSVYEQAYDNKKKCK 107
DB 68 QTPEDPCDLHKKYTNVTTN-VINPCADRSDVRFSDEYCGGCTINR1KDSGGGNKG--- 123

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QY 108 SNGMTCAPRRLHLCKNKPMMNSNDSSKACHDLLAECYMAKYEGESIKTHPYRDSKY 167  
 Db 124 -----ACAPYRLHYCDQDLBOJEPKIKINT--HNLLVDCYMAKEGSGITQDYPKYQATY 178  
 QY 168 PGSPFPCMTLARSFADIGDIIIRGDLVYGNKKKKQNGKETEREKLBOJLKEIFKJIDHN 227  
 Db 179 GDSPSQICMTMLARSFADIGDIIIRGDLVYGNPOEIK-----QROOLENNLTTIIGKIKYEX 233  
 QY 228 LKJDEAQRVNGDEDPNFYKLREDMWTANRETMWGMATCSKELDNSSFRATCNDTQGP 287  
 Db 234 LMGDA--RYG--NDPEFFKLREDMWTANRETMWGMATCSKELDNSSFRATCNDTQGP 283  
 QY 288 SOTNKKCRCDXKDGANAGKPRAGDGVYIVPTFYDYPQYLRWEEMADECRKKKKKLE 347  
 Db 284 BRTGYCRKCNDO-----VPTFYDYPQYLRWEEMADECRKKKKKLE 327  
 QY 348 NLEKQCRKXDSDEYRYSRNGYDCEQITSRKGVKMGKGTDCFPACGYSYENMIDNRK 407  
 Db 328 DVKENCRCXKDEKDRYCSRNGYDCEKTKRAIGKLRVYKQICISCLYACNPYVDMINQKE 387  
 QY 408 QEDKO--KYTKEI-----SDGGRRKRAVGG--TTKEGYEKSPYELKNDGYTVDAF 458  
 Db 388 QPDKOKKKYDEIKKYENGASGSRQKRDAGGTTTNTYDEKPYDELNKSERYTVDKP 447  
 QY 459 LGLANNEKACHDITD--GKINFEVNSGGVGGSGTSGASTNDEKGTFRSEYEC 516  
 Db 448 LEKSNBEICTKRVDEBEGTIDFKNV-----SDTSGASTNDEKGTFRSEYEC 498  
 QY 517 QPCPDCCGV--HKGG--NOWERKTKVKKRWSKLYKP--INGKVVLLKSLKVVKDMT 569  
 Db 499 QPCYCGVKKVNNGSSSNEMEEKNN--GKCKSGKLYEPKPDKEGTITILKSGKGDID-- 554  
 QY 570 LKKMKREKCLTONSSDGSVSVVTTGASGSEKKEIYDEMKCYKHEVQVKNVQGEVBE 629  
 Db 555 IEEKLNKFCDBKNDJTINSGGSGTSGSGRQELBEWKCYKGBEVVYVGHDEBDE 614  
 QY 630 DDELKAGAGGLCILPNPKNKEVSEAKSONNHADIQKTFHDFPYVVAHMLKDSIHMRTK 689  
 Db 615 DYEVNKAAGGLCILKQKQKKEBEGNTSEKPEDEIQTFFNPFYVVAHMLKDSIHMRTK 673  
 QY 690 RLKSCISDGKTMKC--RNGCNKKDCFEKRVKQKETEWPRIKHFRTQDEGIRYEGYVTTLE 748  
 Db 674 KLQCLQNGNRKIKCGNNKCNNDCECFKRWITQKDEMGKIVQHFQIUKIRGSGSDMTAE 733  
 QY 749 LI-----LKLQFLKED-----TBENTENSLDAEBAELKHLQKILKLENNLAV 793  
 Db 734 LIPRHDHYVLOYNQOEFLKGBSDASEKSEKSLDAEBAELKHLREIIESEDNQDEAS 793  
 QY 794 VNAG--TEOKTLMDLKLNHELNDATKCKDCPLPEBDK----- 828  
 Db 794 VGGGVTEOKNIMDKLNTEKDBADLCLEIHEDBEEBEKKGDNCEIBEGENFRYNPCSGE 853  
 QY 829 ----- 828  
 Db 854 SGNKRYPLANKVAYOMHHRKAKTOLASRAGRSALRGDISLAQFKNGRNGSTLKQOICKIN 913  
 QY 829 -----SRGRADRS-----PDFIFP----- 843  
 Db 914 ENYSNDRSGNSGPGCTGKDGHGAVRMRIITEMSNIEGKQTSYKKNVFLPRRBHMTSN 973  
 QY 844 ----- 843  
 Db 974 LBNLDVGSVTKNDKASHSLLDVQLAAKTADEIIRYKQDNMTQLTDPIDQKQOEMCR 1033  
 QY 844 ----- 843  
 Db 1034 AVRSYFADLGDIIIRGDMWDEBDSKSTDMETRLITVFNKIKKEHDIKONPKYTGDESKP 1093  
 QY 844 ----- 843  
 Db 1094 AYKKLRADWMEANRHOVRANKCATKGIIICGMPVDYIIPQRLRMWTBMAEWYKASQOE 1153  
 QY 844 ----- 843

Db 1154 YDKLKIKIADCMXSGDKCTQGDVDCCKRAACDKYEBIEKNNEQWRKISDKYNLLYLQ 1213  
 QY 844 ----- 843  
 Db 1214 AKTTSTNPGRTVLGDDDDPYQQWVFLTPRIHKASIAARVLVKRAGSPTEIAAAPTTPY 1273  
 QY 844 ----- 843  
 Db 1274 STAGYITHQBIGYGCQEOQOFCEKKGATSTSTTKENKETYFKQPREVATACDINRS 1333  
 QY 844 -----RPEEKED----- 850  
 Db 1334 QTEEPKKEBENVESACKIVEKILEGNKGRATTVEGCPNRESYPMDCKNNIDISHGACMP 1393  
 QY 851 -----DEN-----EDDEDEVRD--- 863  
 Db 1394 PRROKLCYYIAHESQENIKTDNDLADAPIKTAABTFLSWQYKSKKNSEAKILDRGL 1453  
 QY 864 -----DEBTAKE-----TTGGS----- 875  
 Db 1454 IPSQPLASMTTFBDYDIDLANTDISKQNDVAKAKKIGKFGSKDSKSPSGLSRQEW 1513  
 QY 876 -----ATDT----- 879  
 Db 1514 KTNGBEIKMGMLCALTKYVTDITDNKRIKNDYSYDVNQSNGNPSLEFAKQPLRWM 1573  
 QY 880 ----- 879  
 Db 1574 IEMGEFCAEROKKENIIKDCAINEINSTOOCNDAKHRCNOACRAYOBYENKKYEFSGQT 1633  
 QY 880 ----- 879  
 Db 1634 NMFYKANVQPODEPYGAYEKQGVPIQGENYLLQKCDNNKSCMDGNLVSPEKXEP 1693  
 QY 880 -----TSLDVCPIYKVLTKDNESLQDA 903  
 Db 1694 GKXAHKYPEKDCYQGHVPSIPPPPPVQOPQEPAPFTYVDVCSIV--KTLFKDITNPSDA 1752  
 QY 904 CSLKYGANRRLKRCV---TPSGEPT---SSRKNACIYPPRRRLYIKIYDAWTKT 957  
 Db 1753 CGLKY--GKTPSSWKCI:PSDTKSGAGATTGKSGSDSISICPPRRRLYVYKQIQEMWYAL 1811  
 QY 958 ESPQSGSEASSTGSGTTPPDSKEALLKAFVESAATFFLMMHYKEBKKAVALQEGAGHG 1017  
 Db 1812 --POGBGAAPSHSA-----DDLNAFIIQSAIITFFLMDRYKEBKPOG--DGSQQA 1860  
 QY 1018 LPRYEE--GSPEYDPEDK--LKEGKIPDGFLROMFYTLGDRDILFSGSNDTTSVSKDTPS 1074  
 Db 1861 LSQULTSYSDDEBPPPKLQNGKIPDPFLRMFTYLGDRDILVHGGN--TSDSGMTNG 1918  
 QY 1075 SSNDNLKNIYVLASGSTEOERBEKKNKYKEI--KNFRKCSITERGAPNLVSHQPTWENNKG 1132  
 Db 1919 SNNN--NIVLEASGNKEBDMQIOEKIEQILPKNGGTPLVKXS---AOTPDKMMNBEHAE 1972  
 QY 1133 YIMHGWICALT---SKDKTAKGEKKPOKIEBENLMD---ANKK-----PKP 1175  
 Db 1973 SIMKMTICALTYEKNPDTSARQDE---NKIKODEVEYKPFQSTABDKHGAISTPTGYK 2029  
 QY 1176 POYQYTNVYKLDENSGTSPRITQOASSDNTPTTLTHEVKAPTYRWEEMGESFCRBRK 1235  
 Db 2030 TOYDEKVLKEDTSG---AKTPSASDTP--LLSDVLABPYRYLBEWQONFCCKRRKH 2083  
 QY 1236 RLKQIKYDCVYENGDV-----RSGGGEACDSISTHDYSVSPFNCPCGCKHSGSY 1287  
 Db 2084 KLAQIKHECVCYENGSGSRGGITROYSGDEACNEMLPKNDGVTPLERPSCKAPSSY 2143  
 QY 1288 RMYTERKIEFHKOSNAYGOOKTDATANNNGTFFKCFKTLTETPPDAKFLERLKNPCK 1347  
 Db 2144 KMIIESKGEFEKQKAYEBOOK--DKCVNGSKNDNGCEITLITSSSKAKDLKTL--GPKC 2200  
 QY 1348 TNKEYGDDIDIFEKDSKTFQHTTEYCGCPKPKTKNQCNGNCGVSLANGCDGKSIDAKEI 1407

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Db 2201 PNNVEGKTFD--DDKTFKTKDCKDPLKFSVNCCKDECD-NSKGTDCRNKNSIDATDI 2256
Qy 1408 AKMSSTDDVMRYSDNDTTFEGDDLYKDACQHANIFKGIKIDYWKGGYGVGVDICEQTN 1467
Db 2257 ENGVDSTV-LEMRYSDSKSGSFNDGLENACRGAGIFBGIRKIDMKCRNVCGYVCKPEN 2315
Qy 1468 INERTDGEYVIGIPLFRWYENFLLEDYNNKINDKISHCICKKESKCKINCCKNSKLEK 1527
Db 2316 VNGEAKGHIIGIPLALVRWYEFYFEDYNNKIKHISRIKNGEISPCI---KN--CWEK 2369
Qy 1528 WIEKKIKWENIKKRFNDQYNNKQOPDYNNKSLIEELPKIAVVDNDQNVKLCVFNNSK 1587
Db 2370 WVDQKREWKSTIRFQYNNKSDNDNRSFLETLIPQITDANAKNKVTKLSKFGNSC 2429
Qy 1588 GCTTISNTQ--NNKENDADCMKTKLGVKAKNCPSK--PSGEKQSDCKEPPPLPDE--- 1639
Db 2430 GCSASANQNNKNGEYKALIDCMKTKKIDGCEKHHQISDTSCSPRQQTLEDETL 2489
Qy 1640 --EDQNEENTLEBPFCPT--TPPEEKQGETCGNKEKKDKKESEEPKAKESGP 1694
Db 2490 DDIEBEAKKMM--PKICEVNLKTAQOEDEGC--C-----VPAENSEEPATDSGK 2537
Qy 1695 AAEPAPAAEBETETNFPPEPGTGPAPAPSTPAP---PTPDTPPLRPQADEPDSCTL 1751
Db 2538 ETPQTPVLPKEEBAVPEPPPP-----PQEKAPAPLPQPPPTQLDNPHTAL 2591
Qy 1752 QT-TTFGVALALGSIAPFLFK 1772
Db 2592 VTSLTAMSVGIGFATFTFYFLK 2613

```

# RESULT 5

US-09-210-288-12

Sequence 12, Application US/09210288

Patent No. 6392026

GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

APPLICANT: Chitnis, Chetan

APPLICANT: Miller, Louis H.

APPLICANT: Peterson, David S.

APPLICANT: Su, Xin-zhaun

APPLICANT: Wellens, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX

TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESS:

ADDRESSEE: Knobbe Martens Olson & Bear

STREET: 620 Newport Center Drive 16th Floor

CITY: Newport Beach

STATE: California

COUNTRY: US

ZIP: 92660

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/210,288

FILING DATE:

CLASSIFICATION:

ATTORNEY/AGENT INFORMATION:

NAME: Fuller, Michael

REGISTRATION NUMBER: 36,516

REFERENCE/DOCKET NUMBER: NIH121.1FWDV1

TELECOMMUNICATION INFORMATION:

TELEPHONE: (619) 235-0176

TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 12:

SEQUENCE CHARACTERISTICS:

LENGTH: 2710 amino acids

TYPE: amino acid

STRANDEDNESS: single

```

; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEITICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
US-09-210-288-12

Query Match 26.4%; Score 3197.5; DB 2; Length 2710;
Best Local Similarity 30.6%; Pred. No. 3.9e-203;
Matches 834; Conservative 244; Mismatches 569; Indels 1075; Gaps 74;

Qy 4 SGSGSGTQDEADAHVLDPEQGVYDHYHGRKXVYSELKSLASLIGETAFVMSQRT 63
Db 14 AAGGDDIEDSAGHMFRIQKDVYDKYBEAKERGKGLQGRLS-----BAKEKESDP 67
Qy 64 ES-----KYTELEANSKRNPK-----KDGKNDVDRFSYKEQGYDNKKMKC 107
Db 68 QTPEDPCDDLDKHTHTVNTTN-VINPCADRDVAFSDYGGQCTHNRIKDSQGDNGK--- 123
Qy 108 SNGMTCAFFRRLHLCNKPFPNMSNDSSKAKDILLAEVCAATYGESITKTHPKTDSKY 167
Db 124 ----ACAPYRRLHYCDQNLQIPIKITYNT-NHLLYDVCAAFEEQGSITQDPKQATY 178
Qy 168 PGSDFWCTMLARSPADIGDIIRGRDLYLGKXKXKXGKETEERKLEQKLEIFKIHND 227
Db 179 GDSPSQICTMLARSPADIGDIIRGRDLYLGKXKXKXGKETEERKLEQKLEIFKIHND 233
Qy 228 LKDEAKQRYNGDEDPNFFYLREDMWTANRETYWGAATCSKELDNSYFRATCNDTQGP 287
Db 234 LINGAEA--RYG--NDPEFFLRREDMWTANRETYWKAITNAM--GNITYFATCN---RG- 283
Qy 288 SQTNNKCRCDKXGANAAGKPKAGDGVTVPTYPDYVPQYLRNFEEMAEDFCKKKKLE 347
Db 284 ERTKGYCRCDNDQ-----VPTFYDYVPQYLRNFEEMAEDFCKKKKIK 327
Qy 348 NLEKQCGKDKDEYRYSRNGYDCBOTISRKGVMRGKCTGCFACSGSYEMINDQK 407
Db 328 DVKNCRGKDKEDRYCSRNGYDCBOTISRKAIGLRGKQICSLVACNPFYVDINNQKE 387
Qy 408 QFDKQ-KKYTEI-----SDGGRKKRAVAG--TTYRGEYKSFYEKLNDGYGVDAF 456
Db 388 QFDKQKKYDBEIKKYENGASGSGRQKRDAGTTTNYDYEKKFYDELKKESERTYDKF 447
Qy 459 LGLNNKACKDITD--GKINFEYVNSGGVVGSGGSGTSGASGNTDENKGTFRSEYK 516
Db 448 LEKLSNEICTKYVDEBEGTIDFANVN-----SDSTSGASGTVVEGQGFYRSKYC 498
Qy 517 QPCPDGCVQ--HNGG--NOMEKTKVKKRMKSLYK--INGKMLVLLSKLVVXDMMI 569
Db 499 QPCPYCGKVVNNGSSNEMEBKNN-GKCKSGKLYEPKPKDEGTTITLISLKGCHD--- 554
Qy 570 LKNNKEFCLTONSSDSVGSVVTGASGNSSEKELYDEMCKYKANEVQKVNQGEVEE 629
Db 555 IEEKLNKFCDEKNDTITNSGSGTGGSGGNSGQELIYEMKCYKGDVYKVGHDEDEE 614
Qy 630 DDEELKAGGLCILPNPKKKEVSEAKSNNHADIQTFPHDFYVVAHMLKDSIHWRTK 689
Db 615 DYEVNNAAGGLCILKQKKNKEBEGANTSEKEPEIQTTFNPFYVVAHMLKDSIHWK-K 673
Qy 690 RLKSCISDGKTMKC-RNGCKKCCDFEKNVKQKETEKKPIKDHFKTQDEGIPBGVFTTL 748
Db 674 KLQRCLONGNRKIKGNKKNNDCECFRMTTQKDEGKIVQHKTONIKRGSGSDNTAE 733
Qy 749 LI-----LKLQFLKED-----TEENTENSIDAEABELKHLQKILLENNNLAV 793
Db 734 LIIPDHYVLYQNLQEEFLKGDSEDAEBSGNSLDAEABELKHLAEIIESDNNQEAS 793
Qy 794 VNAG-TEQKTLMDKLLNHELDATKCDPLPEEDK----- 828
Db 794 VGGVTEQKNIIMDKLNYBKDEADLCLEIHDEEBEKGDQNECIEGENFRYPCSGE 853
Qy 829 ----- 828

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Db 854 SGNRRYPLANKVAYOMHKAQTOLASPRASALRGDISLAQFKNGRNGSTLKGQICKIN 913
QY 829 -----SNGRSADPS-----PDIFP----- 843
Db 914 ENYNSDSKNGSGPCTGKHGQGVNRMIGTEWSNIEGKKQTSYKNVFLPPRRHMTSN 973
QY 844 ----- 843
Db 974 LBNLDVSGVTKNDRKASHSLLDVOLAAKTDAAEIIRKYKDQNTQLTDPIDQKQOEMNCR 1033
QY 844 ----- 843
Db 1034 AVRRSPADLGDIIIRGDMWDEKSDTMDRELITVFKNKEKHGDIKONPKYTGDESXKP 1093
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Db 1094 AYKRLRADWMEANRHOVRANKATKGIICPGMPVDYIIPQLRMWTEMAEWYCKAOSOE 1153
QY 844 ----- 843
Db 1154 YDKLKICADCMKSGDKCTGQDVDCGCKAACDKYKEIEKMEQMRKISDKYNLYLQ 1213
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Db 1214 AKTTSTNGRTVLGDDDPDYQOMVFLPIHKASIAARVLKRAAGSPTBIAAAPIPTY 1273
QY 844 ----- 843
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QY 844 -----RPEEKED----- 850
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QY 851 -----DEN-----BDDDEDEVRD--- 863
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QY 864 -----DEBTKFE-----TTEGS----- 875
Db 1454 IPSQFLRSWMTFGDYRDICLNTDISKKQNDVAKAKDKIGKFKSGKSGSPSGLSRQEMW 1513
QY 876 -----ATDT----- 879
Db 1514 KTNGBEIKWMLCALTKYVTIDTNRKRIKNDYSTDKNOSQNGNPSLEPAKPOFLRMW 1573
QY 880 ----- 879
Db 1574 IEMGBEPCAEOROKKENIIKDAGNEINSTQCCNDAGHCNQAARAYOEYVENKKKEPFGQT 1633
QY 880 ----- 879
Db 1634 NNFVLKANVQPODPPEKYGEYKDVQPIQNEVYLQKDNKSCMDGNVLVSPEKEKP 1693
QY 880 -----TSLDYCPITGVKVLTKDNESLDA 903
Db 1694 GKVAHKTPEKDCQYQKAVPSIPPPPPVQPOPEAPVTVDCSTIV-KTLFEDTNNESDA 1752
QY 904 CSLKYGNNRSRLGMRCV---TPSGEPTT---SSDKNGAICVPPRRRLYIKKIIVMATKT 957
Db 1753 CGLKY-GKTASBSMKCIPSDTKSGAGATTGSGSGSICIPRRRLIYVGLKQGMATL 1811
QY 958 ESPQASGSASTSGSTTPPDSKEALLKAFVESAALIEFFLMMHYKEEKAVAQAGHG 1017
Db 1812 ---POEGEAPSHSRA-----DDLNAFIQSAALIEFFLMDRYKEKKQCG-DGSQQA 1860
QY 1018 LPRVBE--GSPRYDEDK-LKEGKIPDGFRLQMFYTLGDYRDIJFSGSNDTTSVSKDPS 1074
Db 1861 LSQLTSTYSDBEDPDKLQNGKIPDPLMFYTLGDYRDIJFVHGN--TSDSGNTNG 1918
QY 1075 SSNDNLKNIIVLASGTEQEREKNKYEI--KNFRKSTERSAPNLVSHQPTWENNKG 1132
Db 1919 SNNN---NIVLEASGNKEDMKIQEKIQLIPKNGGTPLVPRSS---AQTPDKMNEHAE 1972

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QY 1133 YIWHGVCALT-----SKDKIAKGVKKPKIKENBENLMD-----ANKK-----PKP 1175
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QY 1176 PQOYTNVKLDENSGTSPTTQTOASSDNPTTTLTHFVKRPTTYRMWBEWGESFCREBK 1235
Db 2030 TOYDEBKVLKEDTSG-----AKTPSASSDTP-LISDPLARPPRYRYLEWQNFCKKRXH 2083
QY 1236 RLKQIKYDCVENDVG-----RCSGGEALDSDISTHDYTPVSPNCGCGKHSSY 1287
Db 2084 KLAQIKHECVRENGSGSRGGITRQYSQGEACENMLPKNDGTVPDLKESCKAPCSSY 2143
QY 1288 RKMTERKIEPHKOSNAYGOOKTDATRNNGTDPKFECKTLETYPDAKFLERLKNPGCK 1347
Db 2144 RKMIESKGEPEKQEKAYEQCK-DKCVNGSNKHDNGCELTITTSXKADFLKTL--GPKC 2200
QY 1348 TNKEYGGDDIDFEXDKSTPQHTBYCGPCKFTKNCQNGCGVSLNGCDGDKSIDAKEI 1407
Db 2201 PNVGKTFIPD---DDKTFKHTKDCDPLKFSVCKKDECD-NSKGTDCRKNISIDATDI 2256
QY 1408 AKRRSSTTDVVMRYSDDNTTFEBGDLKDAQOHANIFKRIKQVWYKGYGVGVDICBOTN 1467
Db 2257 ENGVDSTV-LEMRYASDSKSGFNGDGLNACRGAGIEGIRKDKMCKRNVCGYVCKPEN 2315
QY 1468 INERTDGEYIQRALPKRWENFLPDYNNKINDKISHCICKGSGSKCINGCEKSKLCK 1527
Db 2316 VNGEAKGKHIIQIALYKRWVEYIFEDYNNIKHKISIRKNGEISPCl---KN--CYEK 2369
QY 1528 WIEKKIAEWENIKKRFNDQYENKQDPYNNVKSILEBIPKIAVVDQDNVYKLCVFENSK 1587
Db 2370 WVDQKRKEMKEITERFDQYKNDNSDDDNVRSFLETIIPQITDANAKNVIKLSKFGNSC 2429
QY 1588 GCTILISTQ--ANKENDALDMLKGLGVKAKNGCK--BSGKQSDCKEPPPLPDE--- 1639
Db 2430 GCSASANEONKNGYKQALDMLKLDKDKIGECRKHQTSDTCSPTQGTLEDEFLD 2489
QY 1640 ---EDONPEENTLEPPKCPPT--TOPPEKGEFTCGNKBEKDEKEESEEPKAKESBP 1694
Db 2490 DDITEBAKMM--PKICEVNLKTAQEDBG--C-----VPAENSEPAPATBSGK 2537
QY 1695 AABEPAPTAESSETETNPPEBPCTGPAAPSTPAP---PTPDTPLPAPQADEPDSITL 1751
Db 2538 ETPQGTFLKPEEBAVEBPBP-----PQEKAPAPIPQPPPTPQLDNDHVLATL 2591
QY 1752 QT-TIPFGVALALGSIAPLFX 1772
Db 2592 VTSTLAWSVGIGFATFYFLX 2613

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RESULT 6
US-10-153-273-12
; Sequence 12, Application US/10153273
; Patent No. 6962987
;
GENERAL INFORMATION:
;
APPLICANT: Sim, Kim L.
;
Chinitis, Chetan
;
Miller, Louis H.
;
Peterson, David S.
;
Su, Xin-zhaun
;
Wellems, Thomas B.
;
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSER: Knobe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

```

COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patentin Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/10/153,273  
 FILING DATE: 21-May-2002  
 CLASSIFICATION: <Unknown>  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US/09/210,288  
 FILING DATE: <Unknown>  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Fuller, Michael  
 REGISTRATION NUMBER: 36,516  
 REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (619) 235-8550  
 TELEFAX: (619) 235-0176  
 INFORMATION FOR SEQ ID NO: 12:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 2710 amino acids  
 TYPE: amino acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: protein  
 HYPOTHEetical: NO  
 ORIGINAL SOURCE:  
 ORGANISM: Plasmodium falciparum  
 SEQUENCE DESCRIPTION: SEQ ID NO: 12:  
 US-10-153-273-12

Query Match 26.4%; Score 3197.5; DB 2; Length 2710;  
 Best Local Similarity 30.6%; Pred. No. 3.9e-203;  
 Matches 834; Conservative 244; Mismatches 569; Indels 1075; Gaps 74;

QY 4 SGGSGGTODEDAKHVLDRECGKVDHVEHGAENYSELKGLSLASIIIGETAFTYKSGQT 63  
 DB 14 AAGGDDIDESAKHMFDRIGKDVYKVEAKERKGLQGRLS-----EAKFEKNESDP 67  
 QY 64 ES-----KYTELIEANSKRNPCK-----KDGKNDVDRFSVKEQAGYDNKKMK 107  
 DB 68 QTPPEPCDLKHYNNTTN-VINPCADBSVDVRSFDEYGGCTHNRIRIDSGQDNKG--- 123  
 QY 108 SNGMTCAPFRLHLCKNFPNNNSNDSPKAKHDLAECMAKYGESIKTHYPRTSKY 167  
 DB 124 ----ACAPYRLHVCDDNLEQIEPIKITVT-HNLLVDCMAKFRGQGITQDYPKQATY 178  
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 DB 179 GDSPOICTMLARSPADIGDIRGRDLYIGNPOEIK---QRQLENNLKTIFEKIYK 233  
 QY 228 LKDKAOKRYNDEDEPNFYKLREDMWTANRETVMGAMTCSKELDNSSYFRATCNDTQGP 287  
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 QY 288 SGTNHNCRCDKOGANAGPKAGDGDVITVPTTFYVPOYLWFEEMADFCRKKKKKLE 347  
 DB 284 ERTKGYCRCNDQ-----VPTTFYVPOYLWFEEMADFCRKKKKKIK 327  
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 DB 388 QTDKQKKYDEIKKYNENASGSGSRKRAAGGTTTNTNDYIKKKYIDELANKSEYTDK 447  
 QY 448 LKLTASNEICTKYKDBEGTIDFKVNN-----SDSTSGASGTNVSOGTFYRSKXC 498  
 DB 517 QCPGPGGV--HKGG--NOMEKTKYKRRNSKLYP---INGKVLILKSLKVVYKDMMI 569  
 QY 499 QCPYCGVYKVNNGSSNEMEEKNN-GKCKSGKLYEPKPKDKGTTITLIKSGKHDD--- 554

QY 570 LKKNMKFCLTQNSSDGSVGSVTTGASGENSEKELDYEMKCYKINEVQKNVQEVER 629  
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 DB 615 DYENKNAAGGCTLKKNKKNEBEGNTSEKRPDIQTENPFYVVAHMLKOSIHK-K 673  
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 QY 844 ---RPEEKED----- 850  
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 QY 851 -----DEN-----EDDDEDEVRD--- 863  
 DB 1394 PRQKLCIYTAHESQTEENITDNLKDAFIKTAAEFTFLSMOYKKSNDSEAILDLGL 1453  
 QY 864 -----DEETAKE-----TTGGS----- 875  
 DB 1454 IPSQFLRSMVTFQDYRDICLNTDISKKNQVAAKDKIGKFSKDGSKSPSGLSRQEMW 1513  
 QY 876 -----ATPT----- 879  
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QY 880 ----- 879
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Db 1694 GKYAHKYPEKDCYQKRVPSIPPPPPVQOPPEAPVTVVYCSIV-KTLFEDTNNFSDA 1752
QY 904 CSLYKGNNSRLGWRGV---TPSGPT---SSDNGAICVPPRRRLYIKKIVMAKRT 957
Db 1753 GGLK-KGTAPBSWKCIPSDYSGAGATTGKSGSDSGSICPPRRRLYVGLQEWATL 1811
QY 958 ESPQSGSEASTSGSTTPDSKEALLKAFVESAIEFFLMHRYKEEKAADGAGHG 1017
Db 1812 --PQEGAPSHSRA-----DLRNAFIQSAIEFFLMHRYKEEKAQD-DGSDQA 1860
QY 1018 LPRVEE--GSPRYDEBK-LKEGKIPDGLRQMFYTLGDYRDLIFSGSNDTTSVKDTPS 1074
Db 1861 LSQLTSTYSDDEBDDPKLQNGKIPDFLRIMFYTLGDYRDLIVHGN--TSDSGNTNG 1918
QY 1075 SSNDLKNIIVLAGSSTQERKMKYKEI--KNRKSSTERSANLVSHQTMWENKX 1132
Db 1919 SNNN--NIVLEASGNKEDMOKIOEKIQILPKNGSTPLVPSK--AQTPDKMWNHAE 1972
QY 1133 YIMHGMVCAIT---SKDIAKGVKKPKQKTEINPENLME-----ANKK-----PKP 1175
Db 1973 SIMKMICALTYTEKNPTTSARGDE---NKIEKDEVEYKFPFGSTADHGHTASTPTGYK 2029
QY 1176 POYQYTNVLDENSGTSPTTQTOASSDNTPTTLTHFYKRPYTFWFEWGESFCRERK 1235
Db 2030 TQYDEYKVLBDTSQ-----AKTPASASDTP-LISDFYLPRPYFLYEMWQNFCKKRKH 2083
QY 1236 RLKQIKVDCYKENGVG-----RCSGDGEACISISTHXYSTYPSNCCGKHCSSY 1287
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QY 1288 RKMIRKKIEFKHOSNAYGOOKTDATRNNGNFTFDEPKLTETWDAKFLERLKNCGCK 1347
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QY 1348 TNKEYGDDIDFEKDSKTFQHTYCGPCPKFKTNCQNGNGCVSLNGNCDGKSIDAKEI 1407
Db 2201 PNNVEGKTIPTD--DDKTFKHDKDCDPCIKFSVNCCKDECD-NSKGTCDRNKNSIDANDI 2256
QY 1408 AKMSSITDVWRVSDNDTTFEGDDLKDACOHANIFKGIKRDVAKCGYVGVDCBOTN 1467
Db 2257 ENGVDSIV-LEMRVSADSKSGFNGDGLNACGAGIFGIRKDEKCKRNVCGYVCKPEN 2315
QY 1468 INERTDGEKYOIRALPKRWENFLLEDYNKINDKISHCICKGEGSKCINGCKNSKLEK 1527
Db 2316 VNGEAKGHIIOIRALVKRWWEYFEDYNKIKHKISHKINGEISPCI---KN--CYBK 2369
QY 1528 WIEKKIAEMENIKKRFNDQYENKQPDVNVVSLIELIPIKIAVNDQDNVILKLVFENSK 1587
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QY 1588 GCTLISNTQ--NNKENDAIKCLKLVYAKKCPGK--PSEKSGSDCKEPPPLPDE--- 1639
Db 2430 GCSASANKQNGEYKDAIDCMLKCLKIGCECKEKKHQTSTECSDTPPOPTLEDETLD 2489
QY 1640 ---EQGNBEENTLEPPKFCPT--TOPPEKGEFCGKKEKDKKESSEEPAREESGP 1694
Db 2490 DDIETBEAKKMM--PKICENVLKTAAQDEBGG--C-----VPAENSEPPAATDGGK 2537
QY 1695 AAEBPAPTAASEETETNPPEPGTGPAPAPSTPAB--PTPDTPLRPOADEPDSITL 1751
Db 2538 EHPEDQTPVLKPEEBAVBEPPP-----PQEKABAPIQOPQPPPPQJLDNPHVLTAL 2591
QY 1752 QT-TIPGYALALGSIAPFLK 1772
Db 2592 VTSTLAWSVGIGFATFYFLK 2613

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RESULT 7
US-10-087-013-2
; Sequence 2, Application US/10087013
; Patent No. 6855323
; GENERAL INFORMATION:
; APPLICANT: Arthur Scherf
; APPLICANT: Louis H. Miller
; APPLICANT: Benoit Gamain
; APPLICANT: Dior I. Baruch
; APPLICANT: Pierre Buffet
; APPLICANT: Christine Scheidig
; APPLICANT: Bruno Gysin
; APPLICANT: Joseph Smith
; APPLICANT: No. 6855323uraka Fujii
; TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF
; TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1
; FILE REFERENCE: NIH176.001C1
; CURRENT APPLICATION NUMBER: US/10/087, 013
; PRIOR FILING DATE: 2002-02-21
; PRIOR APPLICATION NUMBER: PCT/US00/24195
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/152,023
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 3542
; TYPE: PRT
; ORGANISM: Plasmodium falciparum
US-10-087-013-2

Query Match 13.9%; Score 1681.5; DB 2; Length 3542;
Best Local Similarity 20.2%; Pred. No. 4.2e-102; Indels 1977; Gaps 136;
Matches 754; Conservative 327; Mismatches 680;

QY 13 EDAGVLDPEFGQY-HDEVGEAKNYYSELKSLASILGETAFTYK----- 59
Db 33 KSANVLEKRYAKNIRHRSKY--AKENHDSLKGLDTLKEFRGSPSTPVNKAHYVPYPCNL 90
QY 60 --SMQTESKYTELEANSKRNPKCKDQKNDVDFPYKQAGYDNK---PKKCSNGMTC 113
Db 91 DHEKHTMLRYDDV---NLHPKC---HGRQNFDEDESEBCCNKILNRYRK-NDALAC 141
QY 114 APPRRLHCKNPFNMNSNDSSKAKHDLAECVCAAKYEGSSITHYPKYKSPGSPFP 173
Db 142 APPRRRHWCNDKMLALNDINTQNI-HDLGNVLTAKTEGSGSIVNNHP-----HKGTIS-D 194
QY 174 MCTMLASFADIGIIRGRDLVGNKKKKQKQKTEREKLBOKLKEIPKLIHDLKDKXA 233
Db 195 ACTALANSFADIGIIVKICIDHP-----KENVADKVTGLREYVKKIHDMED-BV 243
QY 234 QKRYNGDEDPNFKLRBDMTANRETVWAMTCSKELDNSSYFRATCNDTQGPSPQTHNK 293
Db 244 KNDVNPDSGNGYTLREAMNWNVNKNKWEALITCDASY-KSGYFMQSEBNT--PLFSNPK 299
QY 294 CRCDKQKANAQKPRAGDGVITYPTFYDIPQTLRWEBAEDPCKRKKKLEMLEKQC 353
Db 300 C-----GHKQK-----VPTMLDYPQYLRWDEGEBEFCRGRNKLKKVKQSC 343
QY 354 RGDKSDERYCSHNGYCEQTIIRKQKVRMGKGTDCFPACGSYEMNIDNRQKQFDDK 413
Db 344 R-NDK--ERLYCSHNGHDCITTIKKGIHLDNKCTDCTCYKFEVWLGNGQAEAFKQK 400
QY 414 -KYTKAISDGGKRRKRAVGTTKYEGYKSEFYKLLKNDGYGTVAFLGLNNBEKACQIT 472
Db 401 EYKEKEIGSYLSDNKKFNNIN--SEYKQFYKLLKETQVATNPTFLNLNEGKCYK-- 455
QY 473 DGGKINFQVUNSGGQVGGSGGTSAGSGTND-ENKGFYFVSEYQCPDPDQGVQ----- 525
Db 456 -----GGLPGEKDIITFTNSADKGI FYRSEYCVQCPDGCIVKCDGIXY 497

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QY 526 -HKGQWNER-KTVKQKQWMSKLYKPIKNGVLLKSLKLVKQDMILKQKKEFCLTQNS 583  
 Db THKSDNBERVNNEDYKPPWG--VKPTN---ITVLXSGNEQD---ITQKLENFPC---NS 546  
 QY 584 SDGSVGSVYTTGASGSEKKELYDEWKC-YKHEVQKVNVOGVEBDDDLKQAGGLCI 642  
 Db 547 S-----TNYKDKNNQK-----WECYKDENINCKLEONTLEIND----- 581  
 QY 643 LPNPKKNEVEBAKSQNNHADIQKTFHDFYVWVAHMLKDSIHMTKRLKCSISDGKTMK 702  
 Db 582 --NPK-----IISFHNFFELMVTYLLRDITIKNMKD-LKTCINN-TTTH 620  
 QY 703 CRNGKNCDCGFEKVKVOKETEMKPIKDHFTQSGIPRGGY----- 743  
 Db 621 CIDECNRNCLCFDRVVKQKEEEMNSIKKLFTKCKNIQOSYYSNINNLPEGYFFKVMKLD 680  
 QY 744 -----FTTLE-----LILKQFLKE-----DTEBENTENS 767  
 Db 681 KDBAKKELMENIKRKQNEFSLNENRDYLENAIELLDHLKETATICKONNTMEACETS 740  
 QY 768 LDA-----EBA----- 773  
 Db 741 HNATTNPCVKGPGTOPTKNIKEIQAQYKRSAYEABARRGLHKLKGAHBEIYKRGGRK 800  
 QY 774 ----- 773  
 Db 801 DKONLCRIMIGHSNRNLGFSNGPCDGKOTGDGIQTRFVVGTEWEDDEHNRKDHEDYIM 860  
 QY 774 -----BELKHIQ-----KILKLENE--NUL 791  
 Db 861 PPRRRHICTSNLEHLQTDHPLNGNI VDDL VYNSFLGDVLLSAKXEANKIIRMYEKKNL 920  
 QY 792 AVNNAQTE---OKTL-----MDKLLNH----- 810  
 Db 921 KGPKEVTPKQHOTTCRAIRYSPADIGDIRGRDLMERNKGMVKLOGLHETVFGIHKSL 980  
 QY 811 -----ELN-----DATKCKDCPLPEEDKSGRS-----A 834  
 Db 981 KGKGNDKYNDAPKYLKLRNWMEMANRAKVEAMKCDIKYL--KDKSGHQSOTSSYSGYS 1038  
 QY 835 DPSR-DIFLP-----RPEKEDE----- 852  
 Db 1039 DHTPLDDYIPQKLRWTEWAEWYCYVQKKEKDKLEKCKECKDKQNGOGCTKESGTGCTK 1098  
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 Db 1099 CTBACNEYNDIIGLMKEQWNIISDKYKEIHEQAQMSVNSGIBASTAKNHDRAVIBFL 1158  
 QY 884 -----DVCPIVGKVL-----KD 896  
 Db 1159 SELYOONGGKSNKSGTSDESAVIDGNTTYENYGAVLIHDTGNFDCQSQNEFCDEKSDGKD 1218  
 QY 897 NESL-----QD---ACSLKYGANNRSLGRCVTSSEPTT----- 928  
 Db 1219 NEKYAFRDKPQDHGACGCKSGSKPTRVQIKTKKAAEBKDECKTVNDILKENDKKQVE 1278  
 QY 929 -----SSDKNG-----AICVPRRRRLYIKKIVDMATKTESPOASGSEBAS 969  
 Db 1279 DCHPKKNSNGYDWCQGNINLYVEDPRVCHPPRRQKLCHEFL-----ANDEIKK 1327  
 QY 970 TSGSTTPDPSKEALLKAFVESAAIETFFLMHRYKEKKAUAOAGHGLPRVEBSPEYD 1029  
 Db 1328 L-----QSOYVLKKAFAIKSAAAEFFFSMYKK-----SKDGSNELL----- 1363  
 QY 1030 PEDKLEKGI PDGFLRQMFYTTIGDYDILF----- 1059  
 Db 1364 -KKELEKGIKPIPAFLASMFYTGDRDPLFGTDISKHGEKSLKEQIDSLFKNGDQSP 1422  
 QY 1060 ----- 1059  
 Db 1423 NGRTOEMWTEHSHEIWEAMLCALVKIGAKKODFTENYGNVNVKSDKSTTLEBPAKPO 1482  
 QY 1060 ----- 1059

Db 1483 FLRWLTWYDYCYTRQKYLKDVQEKCKSDOLKQDTECNKKCBYKTKKKKKWIPQD 1542  
 QY 1060 -----SGSNDT-----TSYSKQDTPSSSN----- 1077  
 Db 1543 KYXKDEBKKRFPBROHIGWVWTDYTGTMATDYLNBRKFTACGQKPGSASVVOGRIQLLEK 1602  
 QY 1078 -----DNLKNTV 1084  
 Db 1603 QAVYDADKHGCTKFLIENDDKYTNISKCKQKGLVKEANTGAIKMNKGPNNYNNLKELT 1662  
 QY 1085 -----LLASGSTE-----QREK 1098  
 Db 1663 EDVLPSPRLRILCFHALDNGYTPBEVQDENGRLKRLMEVAATBGTNLIQOYKKEKEKEKI 1722  
 QY 1099 -----NKY-----KEINFRKCSYERS 1115  
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 Db 1783 SDSTTGNPGSTARKFPWNENKCEYWNAMI CGYKRGDDGNSGNSARSDEDLKCKGSVPSD 1842  
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 QY 1143 -----TSKDKI-----AKGVE----- 1153  
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 Db 2143 NYETENKRDNDIKCAFIKCAIETQFLMKYLIENPAENELQNGTTPDEKRIIMYTYTG 2202  
 QY 1198 -----TQASSD-----NTPPT----- 1208  
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 QY 1209 -----LTHFYVRPTYFPMFEBMGESFCREKRR 1236  
 Db 2263 IYGLTYHLTDENEKEKIRDNQYNDMTKLTLSLEFYVRPOFLAMFTMAEFCKNRKEQ 2322  
 QY 1237 LKQIKVDCQVE--NGDVRCGSGDEBACDSISTHDYSTVPSFNCGCGHGSYKRWIERK 1294  
 Db 2323 LKLEAGCKEYECNG--SNDGKTQE-----CAEACVYQNFIKKW 2360  
 QY 1295 KIEFHQSNAYQO-----OKTATRNNGTIPDEKPC----- 1325  
 Db 2361 KTEVERQREKFKQDKGKQYDYPSTERDIEKATCAHEYLMKLELGNKDCSCMQKPS 2420  
 QY 1326 -----KTELETPD----- 1333  
 Db 2421 SOLPRTTQOSQSSDANMPESLDYVBEFPNKCCEPBLSKGSMHTTKITPKNV 2480  
 QY 1334 -AAKFLER-----LKNGPCKTNKYEGD----- 1355  
 Db 2481 KAAVYLSKEAENNMNDITLKEKFIPIESTKESKSNWTNNNPQCPKPYADPKYIGRRNP 2540  
 QY 1356 -----DIDFB---KDSKTFOHTE-YGCPCKPFTINQNGNCGVSGJLNGNCGS--- 1398

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Db 2541 CENREBNRFKVDYEMWKYKNSKFEYQEKRCVCP--PRREHMLCR-----NLDEIKI 2589
Qy 1399 DKSIDAEIACM-----SSSTTDVVMRV--SDN-----DTNTEBGGDLKDAQOHAN-- 1442
Db 2590 ERLKDSNYLLKMWRTARNEGIDIIKNPNSNGCAMNDICDTMKYSPADLDIVRGDTML 2649
Qy 1443 -----IFKGI-----RKQVMKGYVCG 1459
Db 2650 RIGGVLPPVEILKYVFEYIYIGKMRNKRKGNKKNNDVOTPRSAMWADARKOIMK--AMTCK 2708
Qy 1460 VDICEQTNINERTDGE---YIQRALFK-----RWVENF-----LEDY 1495
Db 2709 APBDKLFPRKGRMGFERITLIDQKCGHKDPDVPDYIPQRFRMTWTESEYCYALMBEL 2768
Qy 1496 NKIDKISHCIKKGEGSKINCEN--SKLEKIEKK--IAEMENI-----KKRFNOY 1547
Db 2769 EKFKKSCDHG---KTSRCKRDYDENKCEQCKTRQCEYKNVFLMKSLFDIQSNKYKELY 2825
Qy 1548 ENKDQPDYVNSI---LEELIPKIAVVDQDNVILCVF--ENSKGCTLISNTQNNKEN- 1601
Db 2826 E---QPIYTKISTYDHOVNFQOKLKTFSSEGSVESFSYIHTSKLYNKFNENDGSSNI 2882
Qy 1602 -----DAIDCMLKGLGVKANCPCPKSGEKQSDCKEPPPI---PDEQON- 1643
Db 2883 RTVAFEETPKSYKCAKCTLPFSKN--PLDNC---PTDQKDGCKELQFTFPCSKNDDYDNL 2938
Qy 1644 -----PEENTLEPPK--FCP--PTQPPBEKG-----GCTC 1670
Db 2939 DNWNAVLYLVNSSDDNKGVLIPIPRRHLCRPIITAVNRYKRGKEILKKLLTSAPSGQL 2998
Qy 1671 GNKEEKKOE-----KK--EESSE----- 1686
Db 2999 GQKTKSEBELCFEAMKTSYADYSDIIKQTDMMOTSLSKIKIFETSIEATENKRTWMEN 3058
Qy 1687 -----PAKESG-----PAEBSPPATASE 1706
Db 3059 NRROIWMHMLCGYKATSKVTLDEGWCQLPDEEFTNQFLRWLIBWAQACEKKGIVDSL 3118
Qy 1707 ET-----ETNFP-----EPPG----- 1717
Db 3119 KTKCPRSNEDNFEASELIRQCGCONDIRKYLISLNLINRTMENLNIKKYKQLKDOSSGND 3178
Qy 1718 -----TGPAAPSTPAPT----- 1731
Db 3179 NKPEBENQSYIKSKDSQCALELNDINEIVTGTKNNEINERKEVAKULYPCGLYFVEDETH 3238
Qy 1732 -----PDPPLPAPQA-----DEFPDST-----ILQTTIPPGV 1759
Db 3239 KNHVLADGNIKKEBOTVRKALYFPTPHVDSFYQAPLFSTHVAQVDPKNDLKSSISVI 3298
Qy 1760 ALALGSIAPFLFKKTKTASVGNLFOILOIPKSDYDIPFLKSSNRYIPYVSDRYKGTIY 1819
Db 3299 VSAIGLILAHFMKKKFKSSV--DLRLILNIPQGEYQMPLESKNRYIPYRSGYKGTIY 3357
Qy 1820 MEGGS--DEDKYAFMSDITDVTSSSESEYELDINDIYVPSPKYTLLEVLLEPSGNNT 1877
Db 3358 MEGDTSGBEDYKMWLSSDITSSSESEYELDINDIYVPSPKYTLLEVLLEPSKRDIP 3417
Qy 1878 ASGKATPSTDNDIONDIPSSKITDNEWOLKKEFISNMLQON--QPNVDVPDYTSGNSST 1936
Db 3418 SD--DTFS-----NDTPRNRFTIDDEBNELKDFVQOYLPTNERN--NNYASADIPM 3465
Qy 1937 NTNITTSRHVNDNTNTTMSRDNMEENLLPSIHGULYSGEYSYVNM--VNSMNDIP 1995
Db 3466 NTE-----PMTLYSDNPEEKPIISIHDRDLTGKKEISYININMSTNTNDIP 3512
Qy 1996 INRDNNVSGIDLINDSL 2013
Db 3513 MWARNDSYRGIDLINDSL 3530

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; Sequence 10, Application US/08568459A
; Patent No. 5849306
; GENERAL INFORMATION:
; APPLICANT: Sim Kim L.
; APPLICANT: Chitnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.
; APPLICANT: Su, Xin-zhaun
; APPLICANT: Welleme, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knobe Martens Olsson & Bear
; STREET: 620 Newport Center Drive 16th floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/568,459A
; FILING DATE: 07-DEC-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Israelien, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH121.001CP1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
; US-08-568-459A-10
;
Query Match 11.4%; Score 1385; DB 1; Length 700;
Best Local Similarity 40.8%; Pred. No. 2e-83;
Matches 328; Conservative 106; Mismatches 207; Indels 162; Gaps 34;
;
Qy 113 CAPRRLHLCKNKPNNNSNDSSAKADLAEVCMAAKYEEBSIKTHYPKIDSKYPSDF 172
Db 10 CAPRRLHLCDY---NLESIDTSTHKLLEVCMAKYEENSINTHTYQRTNEDSAS 66
Qy 173 PMCTMLARSPADIGDIIIRGRDLYLG--NKKKKONGKETEREKLBOKLKEIFKTH--DNLK 229
Db 67 QLCVTLARSPADIGDIDYRGKDLVGYDKERQ-----RKKLQKLDKIDFKLHKDVMK 120
Qy 230 DKEAQKRYNGD--EDPNFYKLREDWMTANRETVMGAMTCSKELDSSYFRATCNDTQGPS 288
Db 121 TNGAQERYIDAKGDFQFLREDMTSNRETVWALLCIAKEMNYFIKTACN--VGKG-- 177
Qy 289 QTHNKKCDKDKGANAGKPRAGDGVITVPTYPYVPOYLRFMBEAMDFCRKKKKKLEN 348
Db 178 -TNGQCHC-----IGGD-----VPTYPYVPOYLRFMBEAMDFCRKKKKKLEN 220
Qy 349 LKQCRGKDSDEYRGSBNGYDCEQTIISRQYKRMGAGCTDCEPAGSYENMTIDNORKO 408
Db 221 LQKQCRDYEN--LYSGNGYDCTKITIKKGLVIGEHCTNGSVCMTETWIDNOKGE 277
Qy 409 FDKQK-KYTKEISDGGG---RKKRAVGTTKYE--GYEKSFYKLNQDYGTVDAFLG 460

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Db      278 FLKQKRYETEISGGSGSKSPKTRARARSSSSDDNGESKFFYKULKEVGYQDVDFLK 337
Qy      461 LLNNEKACKDITDGGKINFEKVNSSGGVGGSGTSGASTNDENKGTFRSEYCOPCP 520
Db      338 ILNKEGICQKQPOVG--NEKADN-----VDFTNKKYVTFRTICEPCP 380
Qy      521 DCGVQHGKGNQMERKTYKKNRWSKLYPINKRVLLKSLKVYKDMMLKKMKKEFCLT 580
Db      381 WCGLE-KGGPPW--KVKGDKTCGSAKTKTYDPKNITDIPVLPDKSQNNILKKYNFC-- 435
Qy      561 QNSSDGVSQVYTTGASGNSKKELVDEMKCYKNEVQKYNVQGEVEDEDELKAGAGL 640
Db      436 -----EKAPGGGQIKK-----WCCTY-----DEHR----- 456
Qy      641 CILPMPKKNKEVSEAK-----SONNHADIQKTFHDFYYVAHMLKDSIHMTKSLKSGCI- 695
Db      457 ---PSSKNNNNCVSEGTMDKFTQKQKT--VKSYNVFMVMDMLHDSVEMKTE-LSKICIN 510
Qy      696 --SDGKTMCNKGNCNKKCDCEKRVVKKQETEMKPIKDHFKTQEGI-----PBGY 743
Db      511 NNTNGNTRNNNKKCTDCGCFQKVEKKQEWMAIKDHFGKQTDIVQKGLIVESPYG-- 568
Qy      744 FTTLLELIK---LQFLKEDTEENTENSLDAEBAELKHLKILKENNNLAVVNACTE 799
Db      569 --VLDLVKGNLQNIK-DVHGDT-----DDIKHIKL--LDEEDVAAYVLGGKD 614
Qy      800 QKTLMDKLLNHLNDATCK---DCPLPEEDKSRGSGADSPDIFIRP-----E 846
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Qy      847 EKEDDENDEDEVRDDEETAK 869
Db      674 EDDDDYDEDDDDVQDVVSE 696

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RESULT 9
US-08-487-826B-10
; Sequence 10, Application US/08487826B
; Patent No. 5993827
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chltnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.
; APPLICANT: Su, Xin-zhaun
; APPLICANT: Wellens, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 45
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knobbe Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/487,826B
; FILING DATE: 10-SRP-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Iersaelen, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH21,001CPI
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:

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; SEQUENCE CHARACTERISTICS:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
; US-08-487-826B-10

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Query Match 11.4%; Score 1385; DB 1; Length 700;
Best Local Similarity 40.8%; Pred. No. 2e-83;
Matches 328; Conservative 106; Mismatches 207; Indels 162; Gaps 34;

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Qy      113 CAPPRRLKCNKFPNNNSNDSSKAKIDLAEVMAKYGESIKTHYPKYDSKYPGSDP 172
Db      10 CAPYRLHLCDY---NLESIDTSTTKLLEVMAMKYGNSINTHYTHQRTNEDSAS 66
Qy      173 PMCTMLARSPADIGDIIIGRDLYIG--NKKKQNGKETEBKLEQKLEIFKTIH-DNLK 229
Db      67 QLCVTLARSPADIGDIYRGKDLVLYGDNKEKEQ-----RKLEQKLDIFPKLHKDVVK 120
Qy      230 DKEAQRYND-EDPNFYKLREDMTANRETWGMATCSKELDSSYFRATCNDTGGQPS 288
Db      121 TNGAQERYIDAKGDFPQLREDMWTSNRETVMKALICHAPKEANYFIKTRCN-VGKG-- 177
Qy      289 QTHNRCRCDKDKGANAKPRAGDVTIVTPYDPVPOYLRFEMAEPCFKKKKKLEN 348
Db      178 -TNGQCHC-----IGD-----VPTYPDYVPOYLRFEMAEPCFKKKKKLEN 220
Qy      349 LEKQCRGKDSDEYRYSRNGYCEQITISRKQYRMKGTDCFFACGSYENYIDNQKQ 408
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Qy      409 PDKQK-KYTKEISDGG-----RKRAVGTTKYE--GYEKSFYKLNKDYGTVDALF 460
Db      278 FLKQKRYETEISGGSGSKSPKTRARARSSSSDDNGESKFFYKULKEVGYQDVDFLK 337
Qy      461 LLNNEKACKDITDGGKINFEKVNSSGGVGGSGTSGASTNDENKGTFRSEYCOPCP 520
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Qy      696 --SDGKTMCNKGNCNKKCDCEKRVVKKQETEMKPIKDHFKTQEGI-----PBGY 743
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Qy      744 FTTLLELIK---LQFLKEDTEENTENSLDAEBAELKHLKILKENNNLAVVNACTE 799
Db      569 --VLDLVKGNLQNIK-DVHGDT-----DDIKHIKL--LDEEDVAAYVLGGKD 614
Qy      800 QKTLMDKLLNHLNDATCK---DCPLPEEDKSRGSGADSPDIFIRP-----E 846
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Qy      847 EKEDDENDEDEVRDDEETAK 869
Db      674 EDDDDYDEDDDDVQDVVSE 696

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RESULT 10

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US-09-210-288-10
: Sequence 10, Application US/09210288
: Patent No. 6392026
: GENERAL INFORMATION:
: APPLICANT: Sim, Kim L.
: APPLICANT: Chitnis, Chetan
: APPLICANT: Miller, Louis H.
: APPLICANT: Peterson, David S.
: APPLICANT: Su, Xin-zhaun
: APPLICANT: Wellems, Thomas E.
: TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
: TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
: NUMBER OF SEQUENCES: 37
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Knobbé Martens Olson & Bear
: STREET: 620 Newport Center Drive 16th Floor
: CITY: Newport Beach
: STATE: California
: COUNTRY: US
: ZIP: 92660
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patentin Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/09/210,288
: FILING DATE:
: CLASSIFICATION:
: ATTORNEY/AGENT INFORMATION:
: NAME: Fuller, Michael
: REGISTRATION NUMBER: 36,516
: REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (619) 235-8550
: TELEFAX: (619) 235-0176
: INFORMATION FOR SEQ ID NO: 10:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 700 amino acids
: TYPE: amino acid
: STRANDEDNESS: single
: TOPOLOGY: linear
: MOLECULE TYPE: protein
: HYPOTHEICAL: NO
: ORIGINAL SOURCE:
: ORGANISM: Plasmodium falciparum
: US-09-210-288-10

Query Match 11.4%; Score 1385; DB 2; Length 700;
Best Local Similarity 40.8%; Pred. No. 2e-83;
Matches 328; Conservative 106; Mismatches 207; Indels 162; Gaps 34;

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Db 278 FLKQKRYETEISGGSGKSPKRTKRAARSSSSSDGYSBKPYKLLKEVGYQVDKFLK 337
Qy 461 LNNEXACKDITDGGKINPKFENVSGGVGGSGTSGASTDENKGTFRSRYCPCP 520
Db 338 ILNKEGICQKOPQV--NEKADN-----VDFTNEKYKTSRTIICEPCP 380
Qy 521 DCGVQHKGNQWERKTYKTKRWSKLYPIGKRVLLKSLKVVKDMMLKKNKRCFLT 580
Db 381 WCGLE-KGGRPW--KVAGDKTCSAKTKYTDPKNITDIPVLVPPKSGQNLKTKYKNC-- 435
Qy 581 QNSSDGSVGVVTTGASGNSEKELYDEWKCYKHNQVQKVVQGVVEBDDDLKAGGL 640
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Qy 641 CILNPKKNEVSAAK-----SQNNHADIQTFHDFYYVAHMLKDSIHRTKRLKSGI- 695
Db 457 ---PSSKNNNNCVGGTDPKPTQGRQT--VYSYVFPMDWMDMLHDSVEWKTG--LSKCTN 510
Qy 696 --SDGKTMKCRNGCNKKCDCEKVVKOKETBWKPIKDHFKTOEGI-----PEGYY 743
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Qy 744 FTLELLILK---LQFLKEDTEENTENSLEAEABELKHLQKILKLENNNLAVNAGTE 799
Db 569 --VLDLVTKGQNLQNIK-DVHGD-----DDIKHKKL--LDEBDAAVVLGGKD 614
Qy 800 QKTLMDGLNHELANDARKC---DCPLREDSKRGSSAPSPDIFLRP-----E 846
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Qy 847 EKEDDENEDDEDEVRDEETAK 869
Db 674 EDDDDYDEBDEDDVDVDVSE 696

RESULT 11
US-10-153-273-10
: Sequence 10, Application US/10153273
: Patent No. 6962987
: GENERAL INFORMATION:
: APPLICANT: Sim, Kim L.
: APPLICANT: Chitnis, Chetan
: APPLICANT: Miller, Louis H.
: APPLICANT: Peterson, David S.
: APPLICANT: Su, Xin-zhaun
: APPLICANT: Wellems, Thomas E.
: TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
: TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
: NUMBER OF SEQUENCES: 37
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Knobbé Martens Olson & Bear
: STREET: 620 Newport Center Drive 16th Floor
: CITY: Newport Beach
: STATE: California
: COUNTRY: US
: ZIP: 92660
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patentin Release #1.0, Version #1.25
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/10/153,273
: FILING DATE: 21-May-2002
: CLASSIFICATION: <Unknown>
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US/09/210,288
: FILING DATE: <Unknown>
: ATTORNEY/AGENT INFORMATION:
: NAME: Fuller, Michael
: REGISTRATION NUMBER: 36,516
: REFERENCE/DOCKET NUMBER: NIH121.1FWDV1

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TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 700 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
SEQUENCE DESCRIPTION: SEQ ID NO: 10:
us-10-153-273-10

Query Match      11.4%; Score 1385; DB 2; Length 700;
Best Local Similarity 40.8%; Pred. No. 2e-83;
Matches 328; Conservative 106; Mismatches 207; Indels 162; Gaps 34;

Qy 113 CAPRRRLHCKNKPENNNSNDSSKAKHDLAEVCAAYEGESIKTHYPKYDSKYPGSDP 172
Db 10 CAPYRRLHLCY---NLSEIDTSTTHLLLEVCMAAYEGNSINTHTYQHRTNDSAS 66
Qy 173 PMCTMLASFPADIGDIIRGRDLYLG--NKKKKQNGKETREKLEBQKLEIFKTIH-DNLK 229
Db 67 QLCYVLARSFPADIGDIVRGKDLVLYGDNKEKEQ-----RKKLECKLDIFKTIHKDVMK 120
Qy 230 DKEQKRRNGD-EDNPFYKLRDMWTANRETYWGAMTCSKELDNSSYPKATCNPTGQSPS 288
Db 121 TNGAOSRIYIDAKGDFQLRDMWTSNRETYWALICHAKREANYFIKTACN-VGKK-- 177
Qy 289 QTHNRCRDCKDKNAGKPKAGDGDVTIVPTVFDVVPQYLRMFEEBMAEDFCRKKKKKLEN 348
Db 178 -TNGQCHC-----IGSD-----VPTVFDVVPQYLRMFEEBMAEDFCRKKKKKLEN 220
Qy 349 LEKQCRGKSDERYTCGRNYDCQRTSRKGRVAMGKCTDCCFACSGSYEMIDNQKQ 408
Db 221 LQKQCRDEON---LYCSGNGYDCRTKYKKGKLVIGHCTNCSYWCMEYETIWDNCKE 277
Qy 409 FDKOK-KYTKETSDGCG-----RKRAVGGTTKYR--GYEKSFYEKLKNDGQGVDAFLG 460
Db 278 FLKQKRYETETISGGSGSGSKSPKRTKRAARSSSSSDNKGESKTYKLEVGIVQDYDKFLK 337
Qy 461 LLNNEKACKDITDGGKINFEKVNSSGGVVGSGGTSAGSGINDENKGTFFYRSEYQPCP 520
Db 338 ILNKEGICQKQPVQV--NEKADN-----VDFNKEKYVTFSTELCEBPCP 380
Qy 521 DCGVQHGKGNOMERTKYVYKQRMKSLYFINGKMYLLKSLKVYKDMMLIKKMKKEFLT 580
Db 381 WCGLE-KGGPPV--KYKGDKTGCSAKTYKTPKNTIDIPVLYPDKSQONILKKYKNFC-- 435
Qy 581 QNSSDGSGSVVTTGASGNSSEKELYDEMKCYKINENYQKNVQGEVEBDEDLKAGAGL 640
Db 436 -----EKDAPGGGQIKK-----WCQTY-----DEHR----- 456
Qy 641 CILPNPKIKNKEYSEAK-----SQNNHADIOKTFHDFYYVVAHMLKDSIHWETKRLKSCI 695
Db 457 ---PSSKNNNNVBEETWPKFTQKQOT--VKSYNVFWDMVHMLHDSVEMKTE--LSKIN 510
Qy 696 ---SDGKTKMCRNGKCKDCFEKVKYQKQETEMKPIKDHFKTQEGT-----PBGY 743
Db 511 NNTNNTCRNNNKCKTDCGCGCFQKWEKQOEWMALIKDHFGKQTDIVQKGLVPSPYG-- 568
Qy 744 FTTLELLIK-----LOFLKEDTEENTENSIDAEABELRHLOKILLENBNNAVYNAQTE 799
Db 569 --VLDLVLGNLGNLIK-DVHGDT-----DDIKHITKL--LDSEDAVAVVLGKGD 614
Qy 800 QKTLMDKILNHELNDATKCK-----DCPLPEEDSKRGRSADPSPDIFIRP-----E 846
Db 615 NNTTI--DKLLQHEKEGAEQCKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQ 673
Qy 847 EKEDDENEDDEDEVDDEETAK 869

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Db 674 EDDDDDEDEDDDDVVDVDSR 696

RESULT 12
US-08-568-459A-8
Sequence 8, Application US/08568459A
Patent No. 5849306
GENERAL INFORMATION:
APPLICANT: Sim, Kim L.
APPLICANT: Chitnis, Chetan
APPLICANT: Miller, Louis H.
APPLICANT: Peterson, David S.
APPLICANT: Su, Xin-zhaun
APPLICANT: Wellens, Thomas E.
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSEE: Knodde Martens Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/568,459A
FILING DATE: 07-DEC-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Israelsen, Ned
REGISTRATION NUMBER: 29,655
REFERENCE/DOCKET NUMBER: NIH21.001CP1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-0176
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 921 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
US-08-568-459A-8

Query Match      5.8%; Score 702; DB 1; Length 921;
Best Local Similarity 26.2%; Pred. No. 8.1e-38;
Matches 237; Conservative 131; Mismatches 346; Indels 192; Gaps 28;

Qy 1337 FLERLNKGPCTNKRYGGDDIDFEKDSKTFQHTYEGPCPKFKTNQNGNG-----VSG 1391
Db 12 FLNLSGKGPCKKDNMDNEDNIDFGDBGTFEADNCKPCSGFTYDCKNCKNGGDTKQKNG 71
Qy 1392 LINGCDDKSDIAKEIAMRSSTDVYMRVSDNDTTFEGDDLQDACOHANIFGIRKDV 1451
Db 72 SNGKKNGNIDYTTASDIENGNSINIDMVVSDKANGFNG---LDAGSANIIFGIRKEQ 128
Qy 1452 MKCGYGVGVDICEDTINER--TDGKEYIOIRALFKRVENFLDYNNKINDKISHCIKNG 1509
Db 129 WKCAKVGGLDVGKLNKNGSIDKQKQIILIRALLKRWVEYFLDYNNKINKAKISHCTKGD 188
Qy 1510 EGSKINGCEKNSKCLEKWEKKAEMENIKKREPNDOYENKQDPYVYKSLIELIPKIA 1569
Db 189 NESTCTNDCKPKCTCVBEMWNGKRTMKNITKQHKITQNGENDN---NMKSLVTIILGLAQ 245

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QY 1932 GNSSTNTTTSRHN-----VDNNTTNSRDNMEEENLLPSIHGNIYSGEYSYV 1985  
 Db 582 NNVPETHKULTBGNNNPEKVI FGSDDSSTLSKFSERPOFLRWLTWGBNFCCKEYK 641  
 QY 1986 MNVNSMNDIPINRDN-----NVYSGIDLINDSLSGKRPDIYDEVLRK 2029  
 Db 642 VLLAKCKDCDVGDGCKNGKCVACKDQCKQYHSWIGIMIDYKKQKRGYTVKVIPLYKE 701  
 QY 2030 ENELFGTENK---RTSTQVAKTTNSDPIHNOLELPHKMLDRHRDMCEKMKNK-----ED 2082  
 Db 702 DKDVNSDDADYKLTQLONNKCVNGTTDENCEYCKHKTSTSDMPESIDKPEKVKD 761  
 QY 2083 ILNKLKEEMKENINNSGKTYNSDNKPSHNHVLNTDVSIGIDMDNPKTKNEITNMDTNOD 2142  
 Db 762 KNCVPEKCNALSVSGG---FPDQAFGGVLEGTCK---GLGEPKKKIEPPQYDPTND 815  
 QY 2143 --KSTW 2146  
 Db 816 ILKSTI 821

## RESULT 14

US-09-210-288-8  
 ; Sequence 8, Application US/09210288  
 ; Patent No. 6392026  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Sim, Kim L.  
 ; APPLICANT: Chitnis, Chetan  
 ; APPLICANT: Miller, Louis H.  
 ; APPLICANT: Peterson, David S.  
 ; APPLICANT: Su, Xin-zhaun  
 ; APPLICANT: Wellens, Thomas E.  
 ; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
 ; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
 ; NUMBER OF SEQUENCES: 37  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Knobbe Martens Olson & Bear  
 ; STREET: 620 Newport Center Drive 16th floor  
 ; CITY: Newport Beach  
 ; STATE: California  
 ; COUNTRY: US  
 ; ZIP: 92660  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/09/210,288  
 ; FILING DATE:  
 ; CLASSIFICATION:  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Puller, Michael  
 ; REGISTRATION NUMBER: 36,516  
 ; REFERENCE/DOCKET NUMBER: NIH121.1EMDVI  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (619) 235-8550  
 ; TELEFAX: (619) 235-0176  
 ; INFORMATION FOR SEQ ID NO: 8:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 921 amino acids  
 ; TYPE: amino acid  
 ; STRANDEDNESS: single  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: protein  
 ; HYPOTHEICAL: NO  
 ; ORIGINAL SOURCE:  
 ; ORGANISM: Plasmodium falciparum  
 ; US-09-210-288-8

Query Match 5.8%; Score 702; DB 2; Length 921;  
 Best Local Similarity 26.2%; Pred. No. 8, 1e-38;  
 Matches 237; Conservative 131; Mismatches 346; Indels 192; Gaps 28;

QY 1337 FLERLXNGPKCKTNREYGGDDIDFEKDSKTFQHTHEYGCPCKFKTNCONGCG-----VGG 1391  
 Db 12 FLNLSKSGPCKKNDNADNEDNIDFGBEGKTFKEADNCKPFCSGFTYDCKNCGSGDTKGCNG 71  
 QY 1392 LNRGNCDDKSIDAKEI LAKMSSSTTDVVMRYSDDDTNFEBDDDLKDAQCHNIPFKIRKDV 1451  
 Db 72 SNGRKNNDYITASDIENGNSIGNIDMVSDDANGFNQ---LDACGSNNIFKGRKQ 128  
 QY 1452 MKGCVGVDCIGBOTINER--TDGKEYIOIALFKKVENPFLDYKINKDISHCITKG 1509  
 Db 129 MKCAKVCGLVCGIKNNGSIDDKQKQIIIRLLKRWVEFLBEDYKIAKASHCKKD 188  
 QY 1510 EGSKJNGCEKNSKCLKEKWIJEKIAEMENIKKGFNDYENKDDPDYVYKSLBELFKIA 1569  
 Db 189 NESTCTNDCPNKCTCVBEMINQKRTWKNIKKHYTKQENEGDN---NMKSLVTDIIGALQ 245  
 QY 1570 VANDQNVITLC---VFENSKGCTILSNQ--NNKENDAIDCMLKGLGAKNCPKPS 1623  
 Db 246 PQSDVNFRIKPCSGLTFBSFCGLMGADNSEKGEEDYDLVLCMLKLEKQIOBCK-KKH 304  
 QY 1624 GEK--QSDCKEPPLPD---EEDQNPENTLEPPKCPPTTQPPREKGETGCKNEBKXD 1678  
 Db 305 GETSVENGKSCITPLDNTLTLEBPIEBENQVEAPNIP-----KQTVED 348  
 QY 1679 EKKESEEPKESGPAEPPAPTAESEETETNFPBPPGTPAAPSTPAPPTPTPP- 1737  
 Db 349 KKKKEEETC-----TPASPYEKRPVH 371  
 QY 1738 -----LRQADPEPSTIIQTTPRGVALAGSIAFLFKKTKASVGNLFQILQIPK 1790  
 Db 372 VARNRTFTPEPVFKIMGRNKKTTCEI-----VAMBLDKNGRTVGBCFR-----K 418  
 QY 1791 SDYDIFLKSS---NRYIPVSDRYKQTYIWE---GSDDEKVAFMSPTDVT----- 1839  
 Db 419 ETVSEWTCDESKIMGGHACIPPRQKLCIHIEKIMTNEKLVAFICAAAEFTLW 478  
 QY 1840 -----SSESEYEELD--INDIYVGSFKYTLIEVLEPSSGNNTTASGKTPSPTRNDIQ 1892  
 Db 479 QNYKKDKNGNAEDDLKGGIIPEDFKQMFY-----TFADYRDIQL 521  
 QY 1893 NDGI PPSKITDNEMNOLKKE-----ISNMLQNPV-----DVPNDYTS 1931  
 Db 522 GTDISSKKDYSKGVKVCNIDVFYKISIRKSMWETNGVITBGMCAISTYTSL 581  
 QY 1932 GNSSTNTTTSRHN-----VDNNTTNSRDNMEEENLLPSIHGNIYSGEYSYV 1985  
 Db 582 NNVPETHKULTBGNNNPEKVI FGSDDSSTLSKFSERPOFLRWLTWGBNFCCKEYK 641  
 QY 1986 MNVNSMNDIPINRDN-----NVYSGIDLINDSLSGKRPDIYDEVLRK 2029  
 Db 642 VLLAKCKDCDVGDGCKNGKCVACKDQCKQYHSWIGIMIDYKKQKRGYTVKVIPLYKE 701  
 QY 2030 ENELFGTENK---RTSTQVAKTTNSDPIHNOLELPHKMLDRHRDMCEKMKNK-----ED 2082  
 Db 702 DKDVNSDDADYKLTQLONNKCVNGTTDENCEYCKHKTSTSDMPESIDKPEKVKD 761  
 QY 2083 ILNKLKEEMKENINNSGKTYNSDNKPSHNHVLNTDVSIGIDMDNPKTKNEITNMDTNOD 2142  
 Db 762 KNCVPEKCNALSVSGG---FPDQAFGGVLEGTCK---GLGEPKKKIEPPQYDPTND 815  
 QY 2143 --KSTW 2146  
 Db 816 ILKSTI 821

## RESULT 15

US-10-153-273-8  
 ; Sequence 8, Application US/10153273  
 ; Patent No. 6962987  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Sim, Kim L.  
 ; APPLICANT: Chitnis, Chetan



```

Miller, Louis H.
Peterson, David S.
Su, Xin-zhaun
Willems, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESS: Knobbe Martens Olson & Bear
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660

COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/153,273
FILING DATE: 21-May-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/210,288
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36,516
REFERENCE/DOCKET NUMBER: NIH121.1FMDV1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 921 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEetical: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-10-153-273-8

Query Match 5.8%; Score 702; DB 2; Length 921;
Best Local Similarity 26.2%; Pred. No. 8.1e-38;
Matches 237; Conservative 131; Mismatches 346; Indels 192; Gaps 28;

QY 1337 FLERLKNGPCKTNKEYGDDIDPEKSDTFQHTTEYCGPCPKFTKNGCNGC-----VSG 1391
D 12 FLNLSKSGPCCKDNDNEDNIDFDEGCKTFEADNCKPCSQFTVDCRKNCGSDTKGKCN 71
QY 1392 LKNGCDGDKSIDAKEIAKRSSTTDVVMRVSDNDNTFEEDLDKDACOHANIFKGIKRDV 1451
D 72 SNGKKNAGDYITASDIENGNSIGNIDVVSVDKDNAGFNG--LDACGSANIFKGIKREQ 128
QY 1452 WKCGVVCVDICEQTININER--TDGEYIQIRALFKRWENFLLEDYNNKINDKISHCIKGG 1509
D 129 WKCAKVGCLDYGLKNGSGSIDKQKQIIRALLKRWVEYFLLEDYNNKINKAKISHCTKDD 188
QY 1510 EGSKINCCEKNSKCLEKWIIEKIAEWENIKKRFNDQYENKQDPDYNVKSILEBLIPKIA 1569
D 189 NESCTCTNCPKCKTCVEEMINQKTEWIKKHYTKQENEGDN--NNKSLVTIDILGALQ 245
QY 1570 VVNODNVYKLC---VFENSKGCTLLISNTQ--NNKENDALIDCKLXGLGAKXNCPGKPS 1623
D 246 POSDVNKAIRKPCSGITAFESFCGLANGADNSEKKGEDYDLVCMKLNLEKQIQECK-KKH 304
QY 1624 GEK--QSDCKEPPPLPD--BEDONPEENTLEPPKFCPTTQPPREKGETCGNKEEKD 1678
D 305 GETSVENGKSGCTPLDNTLTLEEBPIEENQVEAPNICP-----KQTVED 348

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QY 1679 EKKESEEPAKESGPAABEPAPTAESSETETNFPBPPGTGPAAPSTPAPPTDPTPP- 1737
D 349 KKEESEETC-----TPASVPEKCVPH 371
QY 1738 -----LRQADEPPDSTLLQTTIPGVALAGSIAFLPLKKTAKASVGNLPQIIOIPK 1790
D 372 VAWRTFTPEVEFKIMWGRNNKTTCEI-----VAMLKDKNGRTTVGEYR-----K 418
QY 1791 SDVIDPLKSS-----NNYIYVSDRYKGTIYME--GSDDEKVAFMSGTTDVT----- 1839
D 419 EYSEWTCDESKIMGQHACIPPRKQCLAHYDEKIMTYINELKTAIFICAAATFLWM 478
QY 1840 -----SSESEYEID--INDIYVPGSPRYTLIEVVLPESGNNTTASGKNTPSDTRNDIQ 1892
D 479 QNYKKDNGNAGAFDDELKXGIIIPEDPKRMFY-----TFADYRDIOL 521
QY 1893 NDGIPSKITPDNENQKKEP-----ISMLOQNP-----DVPNDYTS 1931
D 522 GTDISKQTSKGVGKVCNIDVIFYKINSIRKSMWETNGPVIWEGMLCALSYDPTSL 581
QY 1932 GNSSTNTNITTSRHN-----VDNNTNTMSRDNMEENILLPISHDGNLYSGEYSYNV 1985
D 582 NNVPETHEKKLTGEGNNNFEKVIIGSDSSTLSKFSERPQFLRWLTWGENFCKEOKKEVYK 641
QY 1986 NMVNSMDIDPINRDN-----NYSGIDLINDSLSGKPIDIYDEVLRK 2029
D 642 VLLAKKCDQVDGDKNGKCVACKQCKQYHSWIGIWINYKQKRYEYKIPLYKE 701
QY 2030 ENELFGENTNK--RISTONVAKTTNSDPIHNOLELFXKMLDRHRDNCERKKNK-----ED 2082
D 702 DKDYKNSDDARDYLKTLQDNMKCVNGTTCENCEYKCHKTSSTNSDWPESIDEXPRKVKD 761
QY 2083 ILNKLKEENKKNENINNSGKTYNSNKSNNHVLNTDVISIQIDMNPRTKREITMDTNOD 2142
D 762 KCMCVPEPCALSVSGG---FPDGAFGGVLEGTCK---GLGEPRKKLIEPQYDPTND 815
QY 2143 --KSTM 2146
D 816 ILKSTI 821

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Search completed: December 29, 2005, 23:17:17  
 Job time : 100.84 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: December 29, 2005, 23:15:07 ; Search time 242.987 Seconds

(without alignments)  
3831.174 Million cell updates/sec

Title: US-09-508-967-1

Perfect score: 12100  
Sequence: 1 MATSGSGSGGTDEDAKHVLD.....VNNKKEIFEERYPSIDWNI 2228

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database : Published Applications\_AA\_Main:\*  
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2: /cgn2\_6/ptodata/1/pubpaa/US08\_PUBCOMB.pep:\*  
3: /cgn2\_6/ptodata/1/pubpaa/US09\_PUBCOMB.pep:\*  
4: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*  
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Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3197.5	26.4	2710	4 US-10-153-273-12	Sequence 12, Appl
2	1681.5	13.9	3542	4 US-10-087-013-2	Sequence 2, Appl
3	1385	11.4	700	4 US-10-153-273-10	Sequence 10, Appl
4	702	5.8	921	4 US-10-153-273-8	Sequence 8, Appl
5	445	3.7	311	4 US-10-087-013-10	Sequence 10, Appl
6	439.5	3.6	407	4 US-10-087-013-8	Sequence 8, Appl
7	422	3.5	294	4 US-10-087-013-7	Sequence 7, Appl
8	421.5	3.5	1421	3 US-09-924-154-13	Sequence 13, Appl
9	418	3.5	1435	4 US-10-153-273-4	Sequence 4, Appl
10	414	3.4	1985	5 US-10-732-923-3351	Sequence 3351, Ap
11	396	3.3	1086	3 US-09-924-154-15	Sequence 15, Appl
12	395.5	3.3	6761	5 US-10-732-923-15035	Sequence 15035, A
13	386	3.2	308	4 US-10-087-013-11	Sequence 11, Appl
14	379.5	3.1	362	4 US-10-153-273-18	Sequence 18, Appl
15	376	3.1	1501	3 US-09-924-154-17	Sequence 17, Appl
16	376	3.1	1568	5 US-10-713-533A-12	Sequence 12, Appl
17	375	3.1	351	4 US-10-087-013-9	Sequence 9, Appl
18	371.5	3.1	1143	4 US-09-924-154-14	Sequence 14, Appl
19	371.5	3.1	1210	5 US-10-677-980-2	Sequence 2, Appl
20	360.5	3.0	411	4 US-10-153-273-19	Sequence 19, Appl
21	347	2.9	2399	5 US-10-732-923-15036	Sequence 15036, A
22	346.5	2.9	2719	5 US-10-732-923-8668	Sequence 8668, Ap
23	345.5	2.9	749	4 US-10-153-273-6	Sequence 6, Appl
24	324.5	2.7	616	4 US-10-293-913A-4	Sequence 4, Appl
25	323.5	2.7	616	4 US-10-293-913A-2	Sequence 2, Appl
26	322.5	2.7	2548	5 US-10-732-923-15009	Sequence 15009, A
27	320	2.6	2910	5 US-10-732-923-3342	Sequence 3342, Ap

28	315	2.6	1115	4 US-10-153-273-2	Sequence 2, Appl
29	295.5	2.4	5176	4 US-10-437-963-150986	Sequence 150986,
30	288	2.4	2165	5 US-10-732-923-13547	Sequence 13547, A
31	284	2.3	6642	4 US-10-369-493-5013	Sequence 5013, Ap
32	282.5	2.3	3507	4 US-10-369-493-5784	Sequence 5784, Ap
33	281	2.3	2133	5 US-10-732-923-15030	Sequence 15030, Ap
34	279.5	2.3	1939	5 US-10-732-923-3340	Sequence 3340, Ap
35	277.5	2.3	2454	5 US-10-732-923-8884	Sequence 8884, Ap
36	276.5	2.3	2539	5 US-10-831-070-6	Sequence 6, Appl
37	274	2.3	3111	6 US-11-097-143-7773	Sequence 7773, Ap
38	273	2.3	4498	4 US-10-712-124-68	Sequence 68, Appl
39	273	2.3	4498	6 US-11-097-143-2577	Sequence 2577, Ap
40	273	2.3	10203	4 US-10-661-809-23	Sequence 23, Appl
41	272.5	2.3	2907	4 US-10-754-342-1	Sequence 1, Appl
42	272	2.2	10203	4 US-10-724-972A-4098	Sequence 4098, Ap
43	271	2.2	6641	4 US-10-282-122A-70580	Sequence 70580, A
44	269.5	2.2	2492	4 US-10-732-923-8882	Sequence 8882, Ap
45	269.5	2.2	2492	5 US-10-934-998-76	Sequence 76, Appl

#### ALIGNMENTS

RESULT 1  
US-10-153-273-12  
; Sequence 12, Application US/10153273  
; Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1EMDVA  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHEICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum

SEQUENCE DESCRIPTION: SEQ ID NO: 12;  
US-10-153-73-12

Query Match 26.4%; Score 3197.5; DB 4; Length 2710;

Beet local similarity 30.6%; Pred. No. 1.4e-156;

Matches 834; Conservative 244; Mismatches 569; Indels 1075; Gaps 74;

4 SGGSGGQDDEDAKVLDFEFGQKVHDEHGAKEAYVSELKSLASLIGETAFYVKSMT 63  
14 AAGGDDIDESAAMFDRIGKDYVDKVEBAKERKGLQGRLS-----EAKFENESDP 67  
QY 64 ES-----KYTELEANSKRNPK-----KDGKNDVDRESVGEQAGYDKKKK 107  
DB 68 QTPEDPCDLHKYHNTVTN--VINCADRSDFRSGDQCTHNRIDSOOGKNGK--- 123  
QY 108 SNGMCAFRRLHCNKNFPMNNSDSKAKHDLAEYCAKAGESIKTHYPRYSKY 167  
DB 124 ---ACAPYRLHVDQDLBOEPIKINT--HNLVDVCAKAKFEGSITODYPRYQRTY 178  
QY 168 PSDFPMCTMLARSPADIGDIIRGRDLYGNKKKKQNGKETEREKLBOKLKPIKJHDN 227  
DB 179 GDSPEQICTMLARSPADIGDIIRGRDLYGNPQELK-----QROGLENNLKTIFGKIYEK 233  
QY 228 LKDKAQRKYNDEDPNFYKLRDEWWTANRETWAGMTCSKELDNSSYFRATCNDTGCGP 287  
DB 234 LAGABA--RYG--NDPEFFKLREDMWTANRETWAKATCNAM--GNTYFHAATCN--RG- 283  
QY 288 SOTNHKCRCDKXGAKNACKPRKAGDDVTIIVPTFYVPOYLWPFEMADEPCRKKKKLE 347  
DB 284 ERTKGYCRCDNDQ-----VPTFYVPOYLWPFEMADEPCRKKNKKK 327  
QY 348 NLEKCRGKDKSDREYCRNGYDCEQTIISRKGVKRWKSGCTDCEFAAGSYENMIDNRK 407  
DB 328 DYKRCRCKDKEDKORCYSRNGYDCEKTKRAIGKARYGKQICSLYACNPYVDIMNKE 387  
QY 408 QPDKO--KYTYKEI-----SDGGGRKKAAGV--TTKYBGYKASYEKLKNDGYCTVDAF 458  
DB 388 QPDKOKKTYDEIRIKYENGASGSGSRQKQDAGCTTTNYDGYEKKYDEILNMSERYTVDKF 447  
QY 459 LGLNNKAKCQDITD--GGKINPKEVNSGGGVGSGGSGTSGASTNDENKGTFFRSYEC 516  
DB 448 LEKLSNEELCTYKVDGEGTIDFKVN-----SSTSGASTNYESQGTFFRSKYC 498  
QY 517 QCPDCGVQ--HKGG--NOMERTKYKGRMSKLYK--INGKVVLLLSLKVVKDMMI 569  
DB 499 QCPFCGYKXVNGSSNMEBEKKN--GCKSGKLYEPKDKGTTITILKSGKHD-- 554  
QY 570 LKQNMKEFCLTONSSDGSYGVYTTGASGNSKKELYDEMKCYHANEYQKXNVGAEVE 629  
DB 555 IBEKLNKFCDEKQKGTINSGGSGGSGSGSGSGROELYEWMKCYGAEVAVKGDHEDDE 614  
QY 630 DDDDELKGAAGLILPNPKKKEVSEAKSONNHADIQKPHDFEYVVAHMLKDSIHMRTX 689  
DB 615 DVENYKNAAGLCTILKQKQKKEEGANTSEKPEDEIQKTFNPFYVVAHMLKDSIHM--K 673  
QY 690 RLKSGTSDGKTAKC--RNGCNKKKDCFEKXVVKOKETEMPRIKDHFYTOGIEPGEYFTLE 748  
DB 674 KLQRLQNGNRIKCGNNKCNNDCECFKRIITQKQEMGKIYOHFTQNIKKGSGSDNAAE 733  
QY 749 LI-----LKLQLIKED--TEENTENSIDABEAEFLKYLQKILKLENNILAV 793  
DB 734 LIPEFDHLYVLQYNLQBEFLKGDSEDSASEKSENSIDABEAEFLKHLREIIBSEDNQBAS 793  
QY 794 VNAG--TEOKTLMDKLNLHNDATKCKOCPLPEBK----- 828  
DB 794 VGGVTEOKNIMDKLNLTEKDEADLCLEIHEDEBEKEKGDGNECTBERGENFRYPCGE 853  
QY 829 ----- 828  
DB 854 SGNKXYPVLVANKVAYOMHHKAKTQLASRAGSALAGDISLAQFXKGRNSTLKQDICKIN 913  
QY 829 -----SRRGSADPS-----DPIFIP----- 843

DB 914 ENYSNDSRNGSGGPCTGKGDHGGVNRMRIGTEMSNIEGKKQTSYKQVFLPPREEMCTSN 973  
QY 844 ----- 843  
DB 974 LENLDVGSYTKNDKASHSLIGDVQLAKTDAEIIKRYKQNNIQLTDP1QKQDQBAWCR 1033  
QY 844 ----- 843  
DB 1034 AVRSFADLGDIIIRGRDMWDEKSDTDMETRLITVFNRIKEKIDGIXDNPKYTGDESKP 1093  
QY 844 ----- 843  
DB 1094 AYKKLRADWMBANHOVWRMAKATKGIICPGMPVDDYIIPORLBMTEABWYCKAOSOE 1153  
QY 844 ----- 843  
DB 1154 YDKLAKTICADOMSGDKCTQGDVDGCKCAACDQKYEIEKNNEQMKISDKYNLYLQ 1213  
QY 844 ----- 843  
DB 1214 AKTTSTNPGRTVLGDDDPDYQOMVFLPIHKASIAARVLVKRAAGPTBIAAAPITPY 1273  
QY 844 ----- 843  
DB 1274 STAAGYIHOETIGGCOEQTOFCBKKGATSTTTKENKEYTFQPPPEYATACDCLNRS 1333  
QY 844 --RPEEKED----- 850  
DB 1334 QTEPERKKKEENVESACKIVKLEBKNGRTTVGECNPKESYPMWDCKNNIDISHGACMP 1393  
QY 851 -----DEN-----EDDEDEVRD-- 863  
DB 1394 PRQKCLVYIAHESQTENIKTDNLKDAFIKTAATAETFLSMOYKSKNSEAKILDRGL 1453  
QY 864 -----DEETAKE-----TTGGS----- 875  
DB 1454 IPSQFLRSMYTFEGDYDICLNTDISKKQNDVAAKQIKGIFSKDSKSPSGLSROEMW 1513  
QY 876 -----ATDT----- 879  
DB 1514 KTNPELWKGMLCALTYKVVTDITDKRKIKNDYSYQVNSQNGNPSLEFAAKQPLRMW 1573  
QY 880 ----- 879  
DB 1574 IEMGEERCAEROKKENITKQACNEINSQOCNDAKHRCNOACRAYOEVENKKEFSGQT 1633  
QY 880 ----- 879  
DB 1634 NNFLVLANVOPQDPEYKGYEKQGVQPIQNEBYLQKCDNNKSCMDGNLVSVPKXEPF 1693  
QY 880 -----TTSLDVCPYGVKVLTKDNESLQDA 903  
DB 1694 GKVAHKTPEKDCQYQKGVPSIPPPPPVQOPQAPFVTVVDCSIV--KTLFKDITNPSDA 1752  
QY 904 CSLRYGANSRLGWRV--TPSGEPTT--SSDRNGALCYPPRRRLYIKIYDPAKT 957  
DB 1753 GGLXY--GKTAPSSWKCIIPSDTKSGAGATTGSGSDSGSICIPRRRLYLYVAKLOEMWATL 1811  
QY 958 ESPQASGEASSTGSGTTPPSKEALLKAPFESAALTFPLMHYKKEKKAUAGGAGHG 1017  
DB 1812 --PQBGGAAPSHSA-----DGLNNAFQSAALITFFLMNDYKKEKKQOG--DGSQQA 1860  
QY 1018 LPRYVE--GSPREYDEPK--LKEGKI PDGFLQMEFYTLGDYBILFSGSNDTTSVSKDTPS 1074  
DB 1861 LSQULTSYSDDEBPPDKLQNGKIIIPDFLRMLMTYTLGDYBILVHGN--TSDSGNTNG 1918  
QY 1075 GSNDLKNIVLLASGSTEOERKRNKYEI--KNPRCSTERSAPNLVSHQPTWENNGK 1132  
DB 1919 SNNN--NIVLEASGNKEDMKIOEKIEQILPKKQGTPLVPKSS--AQPTDKWMBEAE 1972  
QY 1133 YTHGMYCALT---SKDKIAKGVKKPQKIKENENLMD-----ANKX-----PKP 1175  
DB 1973 SIMKMICALTYTEKNDPTSARGD---NKIEKQDEYIEKFPFGSTADHGTASTPTGTYYK 2029

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Qy 1176 P O Y O Y T N K L D E N S G T S P R T T O T A S S D N T P T L T H F Y K R P T Y F P R F E M G E S F C R E R K K 1235
Dy 2030 T O Y I E K Y K L E D T S G - - - - - A K T B A S S D T P - L I S D F L R P P Y F R Y L E M G O N F C K R K H 2083
Qy 1236 R L K O I K Y D C K Y E N G D V G - - - - - R C S G D E A C D S I S T H D Y S T V P S F N C P G C G R K C S Y 1287
Dy 2084 K L A O I K H E C K Y E M G C S R R G I T R O Y S G D E A C E M L P K N D G Y T V P D L E K S C A K P C S S Y 2143
Qy 1288 R K M I E R K K I E F H K S N A Y G O O K T A T R N G N T F P K E F K T I E T M P D A K F I E R L K N G C K 1347
Dy 2144 R K M I E S K E F E K E K A Y E O O K - D C C V N G S N K H D G F C E T L T S K A D F I K T L - - G P C K 2200
Qy 1348 T N K E G D D I D E B K S K T F O H T E Y G P C P K F T N Q N G C V S G L N G C D D G S I D A E I 1407
Dy 2201 P N N V E G K T I F D - - - D D K T F K T K C D P C L K F S V N C K D E C - N S K G T D C R K N K S I D A T D I 2256
Qy 1408 A K M S S T T D V M R V S D N T N T F E G D D L K A C O H A N I F K G I R K D V W K C G Y V G V D I C E Q T N 1467
Dy 2257 E N G V D S T V - L E M R V S A D S K S G F N G D G L E N A C R G A G I F E G I R K D E W K C A N V G Y V C K P E N 2315
Qy 1468 I N E R T D G K E Y I Q I R A L F R W A E N F L E D Y N K I N D K I S H C I K K G E S K C I N G C K S K L E K 1527
Dy 2316 V N G E A K G K H I I Q I R A L Y R W A Y E F E D Y N K I K H K I S H R I K N G E I S P C I - - - - - K N - - C Y E K 2369
Qy 1528 W I E K K I A E M E N I K R F N D Y E N K O P D Y N K S I L E E L P K I A V N D O D N V I K L C V F E N S K 1587
Dy 2370 W V D R K R E M K E I T E R F P K O Y N D S D D N V R S F L E T L P O I T D A N A K R V I K L S F G N S C 2429
Qy 1588 G C T I S N T O - - N K N E N D A I D C M L K K L G V A K A N C P K - - - P S E G K O S D C K E P P L P D E - - - 1639
Dy 2430 G C S A S A N O N K N G E Y K A I D C M L K K L K D I G E C E K H H Q T S D T B E S D T P Q O T L E D E T L D 2489
Qy 1640 - - - E D O N E A N T L E B P K F C P P T - - - T O P P E K G E T C G N K E K O K E S E B P A K E S G P 1694
Dy 2490 D D I T E A K K M M - - - P K I C E V N L K T A Q O E D E G G - - - C - - - - - V P A N S E S E P A T O S G K 2537
Qy 1695 A A E B P A A S E S E T N T F E P E P G C P A R P S T P A P - - - P T P D T P P L R P Q A D E P D S T I L 1751
Dy 2538 E T P E O T P L K P E E B A V E P P P P - - - - - P P O E K A P A P I P O P P P P Q L L D N P H V T A L 2591
Qy 1752 Q T - T I P G V A L A L G S I A F L P L K 1772
Dy 2592 V T S T L A M S V G I G F A T F T Y F Y L K 2613

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; SEQ ID NO 2
; LENGTH: 3542
; TYPE: PR
; ORGANISM: Plasmodium falciparum
US-10-087-013-2
Query Match 13.9%; Score 1681.5; DB 4; Length 3542;
Best Local Similarity 20.2%; Pred. No. 7.66-78;
Matches 754; Conservative 327; Mismatches 680; Indels 1977; Gaps 136;

Qy 13 E D A G H V I D F E G Q Y - H D E V H G E A N Y S E L K S I S L A S I I G E T A F T Y K - - - - - 59
Dy 33 K S A N V L E R A K N I R H S P K Y - - A K E H V S L K G D L T K A E F R G P S T P V K N H Y Y P Y P C N L 90
Qy 60 - - S W Q E S K T E L L E A N S K E N P C K D G K G N D V D F S Y E O A G Y N K - - - - - K M C S N G M T C 113
Dy 91 D H K E H T L R Y D V - - - - - N L R H P C - - - - - H G E O N F D E B E S E C N K I R N Y R K - N D A I A C 141
Qy 114 A P F R L H C N K N F E M N S N D S K A H D L A E V C A A Y E G S I K T H Y P K Y D S K Y P G S D F P 173
Dy 142 A P P R R R M C D K N L E A L N D I N T Q N I - H D L G N V L T A K E G S I V N N H P - - - - - H K G T S - D 194
Qy 174 M C T M L A S P A D I G D I N G R D L Y L G N K K K K O N G E T E R E K L E O K L E I P K I H N L K D K E A 233
Dy 195 A C T A L A S F A D I G D I V G I D M F - - - - - K E N V H D K Y E T G L R E V F K I H D G M E D - E V 243
Qy 234 Q K R Y N G E D E R F Y L R E D W T A N R E T Y W G A M T C S K E L D N S Y F A T C N D T C G G S O T H N K 293
Dy 244 K N D Y N P D G S G Y Y L R A M N V N N K W E A I T C A S Y - K G Y F M Q S S N T - - - P L F S N P K 299
Qy 294 C R C D K D K A N A G K P A D G V T I V P T Y F D Y V P O Y L R F E W A E A D F C R K K K L E N L E K O C 353
Dy 300 C - - - - - G H K O K - - - - - V P T M D Y P O L R F D E G E F C R K R N I K L K V A D S C 343
Qy 354 R G K O D S E Y R Y C S N G Y D C E Q T I S R K G K V M G K C T C P F A C S Y E W M I D N O R O P D K O K 413
Dy 344 R - N D K - - E R L Y C S H N G H D C T T I W K G I L H I D N K C T C S T C K Y F E W L G Q O E A P F K O K 400
Qy 414 - K Y T K E I S D G G R K R A V G G T T K E G E K S F Y E L K N D G Y T V A F L G L N N E A C A C D I T 472
Dy 401 E K E H K E I O S Y L S N D N K V N N I N - S E Y Y K O Y E L K E T O Y A T N T F L N L B G K Y C K - - 455
Qy 473 D G G K I N F E V N S G G V V G G S G G T S G A S G T N D - E N K G T F Y S E Y C O P C P D C G V O - - - - 525
Dy 456 - - - - - G G I P G E K O I T F T N S A D D K I F R S E V C O Y C P D C G V A C D I K Y 497
Qy 526 - H K G N O M E R - K T Y K K R W S K L Y P I N G K N V L L K S L K V V K D M L I K K N K E F C L T O N S 583
Dy 498 T H K S D N D R E R V N N E D Y K P W G - - - V K P T N - - - I T V L Y S G N E G D - - - I T O K L E N F C - - - NS 546
Qy 584 S D G S V S V T T G A S G S E K K E L Y D E W K C - Y K N E V O K A N V O G E V E D D D E L K A G A G I C I 642
Dy 547 S - - - - - T N Y K D K N O K - - - - - W E C Y Y K O E N I R C K L E O N T E L I N N D - - - - - 581
Qy 643 L P N F K N K E V S E A K S O N N H A D I O K T F H D P F Y Y A H M L K D S I H R T R L K S C I S D G K T M K 702
Dy 582 - - N P K - - - - - I S F N F E L M W T Y L I R D I T K N D K - L K T C I N N - T T T H 620
Qy 703 C R N G C N K C D C F E K M V O K S T E M P I N D H F K T O G I E G Y Y - - - - - 743
Dy 621 C I D E C N N C L C F D R W V V Q K E E M N S I K K L F T K K N I Q O S Y S I N N L F E G Y F F Y M D K L D 680
Qy 744 - - - - - F T T L E - - - - - L I L K O P L K E - - - - - D T E N T E N S 767
Dy 681 K D E A K M E L M E N I K R K N E F S N E N N D Y L E M A L E L L D H L K E T A T I C K D N N T E A C E T S 740
Qy 768 L D A - - - - - E E A - - - - - 773
Dy 741 H N A I T T N C V K P R G G T O T T A I K E I A O Y F K S A Y E A A N R G L H K L K G A H E G I Y R G G R K 800
Qy 774 - - - - - 773
Dy 801 D F K D N L C R I M I K H S N R M L F S N G P C D G K G T G D I G T R F V V G T E W E V D P E H M R K D H E D V I M 860

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QY 774 -----BELKLO-----KILKLENE-NNT 791
Db 861 PRRRHICTSNLEHLQTDHDFLNGNIYDDLNNNSFLGDLVLSAKYEANKIIRMEKKNL 920
QY 792 AVNAGTE---OKTL-----MDCLNF----- 810
Db 921 KGPKEVTDPKHQYTIICRAIRYSFADIGDIIRGRDLMEBNGDMVKLOGLLETVFQNIHSL 980
QY 811 -----ELN-----DATCKDCPLPEBDSKGRS-----A 834
Db 981 KKGKNDKYNDAFKTLKRENNWENAKWEMAKCDIKYL--KDSGHOSTOSSYCGYS 1038
QY 835 DPSP-DIFP-----RPEKEDE----- 852
Db 1039 DHTPLDDYIIPQKLWMTTEMAEWYCKVQCKEYDKLKECKECKDXNGQCTKESGTGCTK 1098
QY 853 -----NEDD-----EDVRDETAETTESATDTTSL----- 883
Db 1099 CTBACNEYNDIIGLWKEQWNIISDYKELHBOQMSVNSGIEASTAKNHDNRVLEFL 1158
QY 884 -----DVCPVGVLT-----KD 896
Db 1159 SELVQNGCKSKSGTSDESAVIGTNTTYENVGAYLHDTGNPDCCQSONEFCEKSDGKD 1218
QY 897 NESL-----OD--ACSLKYGNNSRLGWRCTPSPGPT----- 928
Db 1219 NBKTAFRDQPDHDAACGCKSGSKPTRVQIKTKKAEKDECTEKTVDNLKENDOKQVE 1278
QY 929 ---SSDKG-----AICVPRRRRLYIKKIYDNTKTESQASGSESS 969
Db 1279 DCHPKNSNGPYDMOCGNINIVEDPRVCPMPRRQLCVHFL-----ANDNEIKK 1327
QY 970 TSGSTTPDSKALIKAFVESALIEFPLMRHYEKKAVAOEGAGHLPRVEGSPREYD 1029
Db 1328 L-----QSOVNLKBAFIKSAHAETFPSSWYTK-----SKDSGNEL----- 1363
QY 1030 PEDLKBEKIPDGLRQMFYTLGDRDILF----- 1059
Db 1364 -DKELKEKIPPAFLRSMFYTFGRDFLFGTDISKHGEGSKLKEQIDSLPKNDQKSP 1422
QY 1060 ----- 1059
Db 1423 NGKTRQEWMTSHSHEIMWAMLCALVYIGAKKDDFTENYGYNNVKSFXSTLLEBPAPQ 1482
QY 1060 ----- 1059
Db 1483 FLRWLTWYDYCYTRQKYLKDVQEKCKSNDQKCDTECNKKCEYVYKMKKKKWIPOD 1542
QY 1060 -----SGSNDT-----TSVSKDTPSSN----- 1077
Db 1543 KYKQDBRDKRFRQHIQWMTDYGTNATDYLNKFTASCGDKGSASVVOBRIQLLEK 1602
QY 1078 -----DNLKIV 1084
Db 1603 QAYYADAKHCGCTKEIENDDKYTNISXDKCKGLVEANTGAIKMNKGPNNYNLKLJLT 1662
QY 1085 -----LLASGSTE-----OEREXM 1098
Db 1663 EDVLFPSRLRICHALDGNATYDPEYKOBNGLRKRLMEVAATEGYNLOQYKEKKEKTI 1722
QY 1099 ---NKY-----KEIKNFRKCTERS 1115
Db 1723 KTSDAHKYSYEVPCPSAMKYSFYDLRDIILGIDNLEKQKTEBULKKI PNNNGTSVGKG 1782
QY 1116 APNLVSRP-----QTMENNGKIYHGWYCAL----- 1142
Db 1783 SDSTTGNPSTARKEFFNMENKECVNNAMIQYKRGDNGSNGSARSDEDLKCKGSVPSD 1842
QY 1143 ----- 1142
Db 1843 DDYPMGKNDBGTAYQFLRMFAEWGBDFCKHKEKELKLVGACNDYTGDNEDKRAKCTD 1902

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QY 1143 -----TSKDKI-----AKGE----- 1153
Db 1903 ACTQYKKFISEMKROYEKQIKYGENDKIKYSEHPVAKDAEAREYLDQKKI CENKSG 1962
QY 1154 ----- 1153
Db 1963 DCEYKMKDVSTQRLTDGNSQNMPPASLDDEPKVEGKNCQVGRGPRVRARETPSPVSL 2022
QY 1154 -----KKPOKIEK----- 1161
Db 2023 ISKATASKEAKTAPPTKQPKVENLTTEBRAQTRRAAQTRKRTSTATTESDVGTM 2082
QY 1162 -----PENLDEANKK-----PQ-----YQYT 1181
Db 2083 VKAILSNKPPSRGGIEGCKNPTYGQYPRKWCIVGSKXENENGICMPRRKKLCINNIQYL 2142
QY 1182 NVKLD-----EN--SGTSPRTQ----- 1197
Db 2143 NYETENKRDNDIEAFIKCAIETQFLMKLTIENPAENELONGTIPDEFKRLMYTYG 2202
QY 1198 -----TQASSD-----NTPPT----- 1208
Db 2203 DYKMPFGTDISNDKKIITVNSVTTLNENKKKQDKKDEBLKIFMEKKNKFIWEGM 2262
QY 1209 -----LTHPYKRLTYPRWFEMGESFCERKXR 1236
Db 2263 IYGLTYHLTDENEKEKIRDNYQYNDMTKLTPLSEFPYKRPQFLMFTEMABEFCNKKEQ 2322
QY 1237 IKQIKVDQKVE--NGDVGRSGDGEACDSISTHDYSTVSPFNCGCGHSGSYKRWIERK 1294
Db 2323 LKLEBACKEVECNQ-----SNDKTOE-----CABACTTYQNFILKXW 2360
QY 1295 KIEPHKQSNAYGO-----OKTDATRNNGTFDKEPC----- 1325
Db 2361 KTEYERQREKFKKQKQKQKXYKDYSTERDIEKACAEHYLMKLELGNKDCQMKPS 2420
QY 1326 -----KLETWPD----- 1333
Db 2421 SOLPKTQOQSQSDANMPESLDYVPEFKNCEBPELSKSGSMITHKKTIPKIPMNQVE 2480
QY 1334 -AAKFLER-----LKNRCKTNKEYGSD----- 1355
Db 2481 KAAAYLSKEANNDITLKEKFIPIBSTEKESKSTNNNFCDPKPYAPDKITGRNP 2540
QY 1356 -----DIDPE-----KDSKTPQHTK--YCGPCKFKTCQNGCQVGLNGCDG-- 1398
Db 2541 CENREBNRPFKVDYWKVCYKSKFYQEKKRVCP--PREHMCRL-----NLDEIKI 2589
QY 1399 DKSIDAKEIAKM-----RSSITDVVWRY--GN-----DTNFBGDDLKDAQOHAN-- 1442
Db 2590 ERLDQSNYLLKMWVRTARNEGIDITIKNFNSBNGCAMPICDTMKYSFADIGDIVRGTDML 2649
QY 1443 -----IFPGI-----RKQWMCQYVCG 1459
Db 2650 RIGGYLPPVEYIKLYVEYIYIGKRRANKGKANKYNDVQTPRSAMWANDRKDIWK--AMTCK 2708
QY 1460 VDICEQTNINERTDKE--YIQIRALFK-----RWVENF-----LEDY 1495
Db 2709 APEDAKLFRKGRMDGFRITIDQKCHKODRPVDDYIIPQFRWMTSEYCKALMBEL 2768
QY 1496 NKINDKISHCTIKKEGSKYCINGCEKN--SKLEWIEKK--IAWENI-----KGRPDQY 1547
Db 2769 EKFPKSCDHC--KTSPRCRKNDYBENKCEQCKTQCOEKNFVLKMSLFDIOSKRYEELY 2825
QY 1548 ENKOOPDYNVKSI--LEBLPKLAVVNDQNVKLCVF--ENSGKGTLSINTQNNKEN- 1601
Db 2826 E--QPIYTKISTYDHYQNFQKLTFRKSECSVSFSEYILHETKCLANYKENENDGSSNI 2882
QY 1602 -----DAIDCMLKGLGVKAKNCPKSGKSGKQSDCKSPPL-----PDEEDQN- 1643
Db 2883 RTYAFBETPKSYKACGCTLPKSN--PLDNC--PTDQNKQCKELQFTFCQKNDYDNNL 2938
QY 1644 -----DEBNTLEPPK--FCP--PTTOPPEBK-----GETC 1670

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Db      2939 DNMAVLYVNSDDKGVLIIPRRRHLCRPITAVNYRKKDEILKKLLTSAPSGQL 2998
Qy      1671 GNKEKKE-----KK--EESB----- 1686
Db      2999 GQKYSEBELCFEAMKYSYADYDIIKGTDMWDTLSSEKIKKIFETSEATENRKTWBN 3058
Qy      1687 -----PAKEESG-----PAEPAPFAPSE 1706
Db      3059 NRRQIWMHMLCGYKATATSKVTILDEGMCQULPKDEETNOFLRLILEWAKQACEKKKAVDSL 3118
Qy      1707 ET-----ETNFP-----EPPG----- 1717
Db      3119 KTKCRSMEDNFEASELLRQPCQDIRKYSILNLIKNTMENLIKVKQLKDGSGNID 3178
Qy      1718 -----TGPAAPSTPAPT----- 1731
Db      3179 NKPSBENQSYIKSKDSOCALELANDINEIVGTCKNNENNEFKVLKCLYGLYFVEDETH 3238
Qy      1732 -----PDTPLRPOA-----DEPFDST-----ILQTTIPGV 1759
Db      3239 KKHVLIDGNIKKEEQVTRPQALYFTTPHYDSFYQAPLFSTHRVAQYDPRKNDILKSSISVVI 3298
Qy      1760 ALALGSIAPLFKKKTKKASVGNLFQILQIPKSDYDIPTLKSSNRYIPIVSDPRYKGTYYI 1819
Db      3299 VSALGLIALHFKKKFKKSV--DLNLIINIPOGEYGMPTLESKNRYIPIRSGPYKGTYYI 3357
Qy      1820 MEGDS--DEDKAFMSDTTDTVTSSESEYELDINDIYYPGSPKYTLIEVLEPSCNNT 1877
Db      3358 MEGDTSGEDDYKMWDLSSDITSSSEYEELDINDIYYPGSPKYTLIEVLEPSCRPID 3417
Qy      1878 ASGNKTPDPTNDIIONDGIIPSKITDNEMNOLKKEFISNMLON--OPNDVPNDYTSGNSST 1936
Db      3418 SD--DTPS-----NDTPKTRFIIDENELKHPFVQYLPNTEPN--NNYKADIPM 3465
Qy      1937 NTNITTRHVNNTNTTMSRDNMEENLLPSIHDGNLYSGEYSYVNM--VNSMNDIP 1995
Db      3466 NTE-----PMTIVSDNPEKPKFISIHDRDLYGCKEISYINIMNSTNNNDIP 3512
Qy      1996 INRDNNVSGIDLINDSL 2013
Db      3513 MNARDSYRGIDLINDSL 3530

RESULT 3
US-10-153-273-10
; Sequence 10, Application US/10153273
; Publication No. US20020169305A1
GENERAL INFORMATION:
APPLICANT: Sim, Kim L.
Chilnis, Chetan
Miller, Louis H.
Peterson, David S.
Su, Xin-zhaun
Wellens, Thomas E.
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSEE: Knobbe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/153,273
FILING DATE: 21-May-2002

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; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/09/210,288
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Fuller, Michael
; REGISTRATION NUMBER: 36,516
; REFERENCE/DOCKET NUMBER: NIH121.1PMDV1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
; SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-10-153-273-10

Query Match 11.4%; Score 1385; DB 4; Length 700;
Best Local Similarity 40.8%; Pred. No. 2.3e-63;
Matches 328; Conservative 106; Mismatches 207; Indels 162; Gaps 34;

Qy      113 CAPRRRLHLCNKNPNNNSNDSSKAKDLAEVCAATYEGESIKTHYPKYDSKYPGSDF 172
Db      10 CAPYRLHLCY---NLESIDTSTTHKLLEVCMAAYEGNSINTHTQRTNEDSAS 66
Qy      173 PMCTMLASPADIGDIGRDLTYG--NKKKKONKTEREKLEIKKH-DLX 229
Db      67 QLTVALASFADIGDIVGKDLVGYDNKEEQ-----RKLLEQLKDIIFKXHKDVWK 120
Qy      230 DKAQKRYNGD--EDNPFYKLREDMWTANRETVGAMTCSKEIDNSSYFATCNDTGGQPS 288
Db      121 TNGAQERYIDAKGDPFQLREDMTSNREIVYKALICHAPREANYFIKTACN--VGKK-- 177
Qy      289 QTHNKCRCDDKQGANAGKPKAGDGVTVTPYFDVVPQYLRWFEEWADFCRKKKKLEN 348
Db      178 -TNGQCHC-----IGD-----VPTYFDVVPQYLRWFEEWADFCRKKKKLEN 220
Qy      349 LEQCRGKDSDEIRYCSRNGYDCEQTSRKQKRAMGCTDCCFACSGSYEMWINDQKQ 408
Db      221 LQCCRDYEON---LYCSGNGYDCTKTYKKQKLVIGHCNCSYWCRYETETWIDNQKE 277
Qy      409 FDKOK-KYTKETISDQGG-----RKKRAVGTTKYE--GYEKSFEYKLRNDGYGVDAFAG 460
Db      278 FLQQRKRETEISGGGSGKSPKRTYRAARSSSSSDNNGIESKFKLKEVGIQDYDKELK 337
Qy      461 LLNNEKACKDITDGGKINPKFVNSGGGVGGSGGTSGASGTNDENKGYFRSEYQPCP 520
Db      338 ILNKEGICQKQPGV--NEKADN-----VDFTNEXYVTFSTETICEBCP 380
Qy      521 DCGVQHKGNWMEKTKYKRRKMSKLYPINKKAVLLKSLKVVYDMMILKKMWKFCFLT 580
Db      391 WCGLE-KGGPPW--KVKGDKTCGSAKTTTPYKNTITDIPVLYPDSQONILKKYKFC-- 435
Qy      581 QNSSDSVGSVVTTGASGNGSEKELVDENKCYKANEVQKVNVOGEVEDEDELKAGAGL 640
Db      436 -----EKGAPEGGQIKK-----WQCY-----DEHR----- 456
Qy      641 CILPNPKKKEVSEAK-----SQNNHADIQKTFHDFYYVVAHMLKDSIHMRTKRLKSCI- 695
Db      457 ---PSSKNNNNCVGTMDFQKQKT--VKSYNVFMVMVADMLHDSVEMKTE--LSKCIIN 510
Qy      696 ---SNGTKKCNKGNKKKDCFEKRYVQKQETEMKPIKHFKTQEGI-----PBGVY 743
Db      511 NNTGNCTCRNNKCKTDDGCFQKWKVEKKQDMWMIKDHFGKQTDIVQKGLIVSPYV-- 568
Qy      744 FTTLELILK---LQFLKEDTEENTENSLDAEBAELKHLQKILKLENNMLAVVNAQTE 799

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Db      569  --VLIDLKGNLQNIK-DVHGDT-----DDIGHIKLT--LDEBDVAVVLGSKD 614
Qy      800  OKTLMIDLNEHMDATCK-----DCPLBEDKSGRSGADSPDIFIRP-----E 846
Db      615  NTTI-DKLQHEKEQAEQCKQKECEKKAQOESKGRSAETREBERTQPADSAGEVEE 673
Qy      847  EKEDDENEDDEDEVRDEETAK 869
Db      674  EDDDDYDEDDDDVVDVVDVSE 696

RESULT 4
us-10-153-273-8
; Sequence 8, Application US/10153273
; Publication No. US20020169305A1
; GENERAL INFORMATION:
; APPLICANT: Slim, Kim L.
;             Chitnais, Chetan
;             Miller, Louis H.
;             Peterson, David S.
;             Su, Xin-zhaun
;             Wellens, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
;             AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESS: Knobe Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th Floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/153,273
; FILING DATE: 21-May-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/09/210,288
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Fuller, Michael
; REGISTRATION NUMBER: 36,516
; REFERENCE/DOCKET NUMBER: NIH121.1FMDV1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 921 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
; SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-10-153-273-8

Query Match      5.8%; Score 702; DB 4; Length 921;
Best Local Similarity 26.2%; Pred. No. 8.5e-28;
Matches 237; Conservative 131; Mismatches 346; Indels 192; Gaps 28;
Qy      1337  FLERLKGCKTKNGKGGDIDPEKSKTFQHTVEYCGPKPKFTKQNGNCG-----VSG 1391
Db      12  FLNLSKSGPKCKDNDAEDNIDFGDKTFKQADNCKPQSQFTVDCKNCGGDTGKCKNG 71

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Qy      1392  LKNGCGDKSIDAKEIAKMSSTTDVVMKVSNDNTNFEQGDLDKDAQOHANIFKGIKDV 1451
Db      72  SNGKKNQNDIYTASDINDGNSIGNIDMVSDKANFNG---LDAGSANIFGIRKEQ 128
Qy      1452  MKGCVGVADICEQTINER--TDGEYIQIALFKSVENFLEBDYKNKINDIKSHCIKKG 1509
Db      129  MKCAKVGGLDVCGLKNGNSIDKQKQIIRALLKKNVEFFLEBDYKNKINKSHCIKCKD 188
Qy      1510  EGSKINGCEKNSKLEKWIIEKKIAEWENIKGRPNQYENKQPDYVYKSLIEELIPKIA 1569
Db      189  NESCTNDQPNKCTCVSEWINQKRTWENIKIGHYKTQNEKNGDN---NMKSLVTIDILGLQ 245
Qy      1570  VVNDQNVKLC---VFENKQCTLSNTQ--NNKENDALDQMLKKLGVAKKCPGKPS 1623
Db      246  PQSDVNKAIRKPSGLTAFESFCGLNADNSKEKEGEDVLQMLKMLKQIQCK-KKH 304
Qy      1624  GEK--QSDCKEPPPLPD---BEDQNPENTLEPKFCPPPTQPEBEKGETCGNKEEKD 1678
Db      305  GETSVENQKSCITLDTTLLEBPILBENQVEANICP-----KQTVED 348
Qy      1679  EKKESEBEPAKESGPAABEPPAFAESETETNPPEPPGTGPAAPPTPAPPTDTPPP- 1737
Db      349  KKEKEBEETC-----TPASPVBEKVPVH 371
Qy      1738  -----LRPADPEPDSITTIQTTPRGVALALGSIAPFLKXKTKXSVGNLFOIOLPK 1790
Db      372  VAWRRTFTPEVFKIMGRNRKTTCEI-----VAEMLKDKNGRTTVGKCYR---K 418
Qy      1791  SDYIPLTKS---NRYIPVSDRYKGTIYME--GDSDEDKYAFMSDITVT----- 1839
Db      419  ETSBWTCDSEKIKMGHGACIPRRQQLCHYEKIMTNELKNAFVKCAAAETFLW 478
Qy      1840  -----SSESEYELD--INDIYVPSPPRYKTLIEVLIEPSSGNNTTASGKNTPSDTRNDIQ 1892
Db      479  QNYKKDKNGNEDLDEKLGKGIIPEDFKRQMFY-----TFADYRIDCL 521
Qy      1893  NDGIPSSKITNENNQLKKEF-----ISNMLQNP-----DVPNDYTS 1931
Db      522  GTDLSKSKDQSKGVGKVCNIDVFYKISIRYKKSWEETNGVPYIWEGLCAISYDTSL 581
Qy      1932  GNSSTNTNITTSRHN-----VDNNTNTSRRDMEENLLPSIHQNLTSGBEYSYV 1985
Db      582  NNVAPEYHKULTIEGNNNNEKYIFGSDSTTSKPSERQFLRWLTWEENCKQKXKYY 641
Qy      1986  NMVNSMNDIPINRDN-----NVYSGIDLINDLSGGKPRIDYDEVLKRX 2029
Db      642  VLAACKXCDVDGDKCKGKGCVAACKQCKQYHSMWIGIWDYKKQKGYTEVKIPLYXE 701
Qy      2030  ENELFGTENTK---RTSQNVAKTNSDPINQLELPHKMLDRHRDMCEKKNK-----ED 2082
Db      702  DKDVKNSDADLDYLTQLONNKCVNGTTDCECYKCMHTSSTNSDMFESLDEKPEKYKD 761
Qy      2083  ILNKLKEEMNKENINNSGKTYSNDKPSHNHVLNTDVISIQIDMDNPKTKNETTNDTNOQ 2142
Db      762  KNCVNECNALSVSGSG---FPDQAGGGGVLBSTCK---GLGPKKKIIBPQVDPDIND 815
Qy      2143  --KSTM 2146
Db      816  ILKSTI 821

RESULT 5
US-10-087-013-10
; Sequence 10, Application US/10087013
; Publication No. US20040062769A1
; GENERAL INFORMATION:
; APPLICANT: Arthur Scherf
; APPLICANT: Louis H. Miller
; APPLICANT: Benoit Gamain
; APPLICANT: Drot I. Baruch
; APPLICANT: Pierre Buffet
; APPLICANT: Christine Scheidig
; APPLICANT: Jurg Gysin

```

```

; APPLICANT: Bruno Pouvelle
; APPLICANT: No. US20040062769A1utaka Fujii
; APPLICANT: Joseph Smith
; TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF
; TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1
; TITLE OF INVENTION: (PFEMP1) THAT MEDIATES ADHESION TO CHONDROITIN SULFATE A
; FILE REFERENCE: NIH176.001C1
; CURRENT APPLICATION NUMBER: US/10/087.013
; PRIOR FILING DATE: 2002-02-21
; PRIOR APPLICATION NUMBER: PCT/US00/24195
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/152,023
; PRIOR FILING DATE: 1999-09-01
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 311
; TYPE: PRT
; ORGANISM: Plasmodium falciparum
; US-10-087-013-10

```

Query Match 3.7%; Score 445; DB 4; Length 311;

Best Local Similarity 27.7%; Pred. No. 4.5e-15;

Matches 122; Conservative 61; Mismatches 120; Indels 138; Gaps 17;

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QY 902 DACSLKY-GGNNRSLGRVCYTPSGEPTTSSDKGALICVPRRRRLYIKIYDMATKTESP 960
DB 6 DGCNCKYAGKDKYPGWDC-----NSQIHTTHNGA-CMPRRRQKLCVSGL-----TKTDRI 55
QY 961 QASGEASSTSGSTTPPSKEALLKAFVESALETFFLMHRYKEEKKAVAOEGAGHGLPR 1020
DB 56 KAI-----EYIRTEFIKSALETFFLMHRYKEEKKAVAOEGAGHGLPR 85
QY 1021 VEEGSPEDYEDKLEKGIPOGFLRQMFYTLGDIYDILFSGSNDTS-VSKDTPSSNDN 1079
DB 86 -----EAEAELEKNGNIPEGFKQMYTFGDYDIDIFGGRDISTHAYISGSP----- 131
QY 1080 LKNTVILLASGSTDEEREKNNYKEIKNFKCSTERSAANLVSHPTWENNKKYIMHGMV 1139
DB 132 -KVTITLLEKENDAKYAAKQNSNNELD-----DWDQHGKDIWEGML 172
QY 1140 CALTSKDIAKGVKPKQIENPENLMDANKKPKPOYQYTNVNLJDNSTSPRTTQTO 1199
DB 173 CALTHK-----ISDEKKKEIKNKYSYK-KLNE-----SPKGS--- 204
QY 1200 ASSDNTPTTLTHFVRRPTFYFRWFEEWGESFCERERRKRLKQIKVDCKVENGVDGRSGDGE 1259
DB 205 -----NKVEDFAKKPQFLRMFIEWGDEFCAQREKEAKYVSCS-----DAKDYD 249
QY 1260 ACDLSITHDYSTVSPFCGCGKCSYRKWIERRKIEFHQSNAYGQOKTDATRNNGNT 1319
DB 250 GCKRTKSN-----ASCVSACKYEDYITKKKVEYTRQKGFDAKIT----- 291
QY 1320 FDKFECKTLETWPDAAKFLER 1340
DB 292 -DKEGYEGFST-KDASEYTKK 310

```

# RESULT 6

US-10-087-013-8

Sequence 8, Application US/10087013

Publication No. US20040062769A1

GENERAL INFORMATION:

APPLICANT: Arthur Scherf

APPLICANT: Louis H. Miller

APPLICANT: Benoit Gamain

APPLICANT: Doro I. Baruch

APPLICANT: Pierre Buffet

APPLICANT: Christine Scheidig

APPLICANT: Bruno Pouvelle

APPLICANT: No. US20040062769A1utaka Fujii

APPLICANT: Joseph Smith

```

; TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF
; TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1
; TITLE OF INVENTION: (PFEMP1) THAT MEDIATES ADHESION TO CHONDROITIN SULFATE A
; FILE REFERENCE: NIH176.001C1
; CURRENT APPLICATION NUMBER: US/10/087.013
; PRIOR FILING DATE: 2002-02-21
; PRIOR APPLICATION NUMBER: PCT/US00/24195
; PRIOR FILING DATE: 2000-09-01
; PRIOR APPLICATION NUMBER: 60/152,023
; PRIOR FILING DATE: 1999-09-01
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 407
; TYPE: PRT
; ORGANISM: Plasmodium falciparum
; US-10-087-013-8

```

Query Match 3.6%; Score 439.5; DB 4; Length 407;

Best Local Similarity 29.3%; Pred. No. 1.2e-14;

Matches 145; Conservative 56; Mismatches 133; Indels 161; Gaps 24;

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QY 895 KDNESLDACSLK-YGGNNRSLGRVCYTPSGEPTTSSDK-----NGALICVPRRRRLYI-- 947
DB 3 QDGTFKLIECCTKYPTKNDYPGWNC-----TDKVINREBSCMPRRRQKLCIHN 52
QY 948 -KTIYDMATKTESQASGEASSTSGSTTPPSKEALLKAFVESALETFFLMHRYKEEK 1006
DB 53 LEHLSERATETE-----LRKAFIECALETFFLMHRYKEEK 88
QY 1007 KAVAO-EGAGHGLPRVEGSPEDYEDKLEKGIPOGFLRQMFYTLGDIYDILFSGSNDT 1065
DB 89 KDEKTEBGG-----ISDDPD-DPQKLLEGITIPEDFKQMFYTLGDIYDILFSGSNDT 136
QY 1066 TSVSKDTPSSNDNLIKQIVILLASGSTDEEREKNNYKEIKNFKCSTERSAANLVSHPTQ 1135
DB 137 TDISKHGKES-----ALG-----KKIDSLFKNGDQKSPSG--KTPTE 172
QY 1126 WENNKGKTYHGMVLCALTSKDIAKGVKPKQIENPENLMDANKKPKPOYQYTNVNL 1165
DB 173 WMDNYGPDIMGMWCGLS--HHINGNKEQLRK-----NLTD--NNK-----YTKIS- 215
QY 1186 DENSGTSPRTQTQOASSDNTPTTLTHFVRRPTFYFRWFEEWGESFCERERRKRLKQIKVD 1244
DB 216 -----SKLEDFASRQFLRMFIEWGDEFCAQREKEAKYVSCS-----DAKDYD 254
QY 1245 KVENGDVGRSGDEADCSISTHDYSTVSPFCGCGKCSYRKWIERRKIEFHQSNAYGQOKTD 1304
DB 255 EYECG--SQENGKKEACNA-----CEAYSWLKDMDQYEQGTAK 293
QY 1305 YGQOKTDATRNNGNTFDKEFKTLETWPDAA-----KFL-ERLKGCPKTKKEYGQDID 1358
DB 294 FDKDKK-----DKKEDGTSAEVDVAASVSHVLELQELKXNLCTK-----GDCAC 337
QY 1359 FEKDKTPOHTEYCG 1373
DB 338 MEKPSAQDETEELG 352

```

# RESULT 7

US-10-087-013-7

Sequence 7, Application US/10087013

Publication No. US20040062769A1

GENERAL INFORMATION:

APPLICANT: Arthur Scherf

APPLICANT: Louis H. Miller

APPLICANT: Benoit Gamain

APPLICANT: Doro I. Baruch

APPLICANT: Pierre Buffet

APPLICANT: Christine Scheidig

APPLICANT: Bruno Pouvelle

APPLICANT: No. US20040062769A1utaka Fujii

; APPLICANT: Joseph Smith  
 ; TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF  
 ; TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1  
 ; TITLE OF INVENTION: (PFEPM1) THAT MEDIATES ADHESION TO CHONDROITIN SULFATE A  
 ; FILE REFERENCE: NIH176-001C1  
 ; CURRENT APPLICATION NUMBER: US/10/087.013  
 ; PRIOR FILING DATE: 2002-02-21  
 ; PRIOR APPLICATION NUMBER: PCT/US00/24195  
 ; PRIOR FILING DATE: 2000-09-01  
 ; PRIOR APPLICATION NUMBER: 60/152,023  
 ; PRIOR FILING DATE: 1999-09-01  
 ; NUMBER OF SEQ ID NOS: 11  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 7  
 ; LENGTH: 294  
 ; TYPE: PRT  
 ; ORGANISM: Plasmodium falciparum  
 ; US-10-087-013-7

Query Match 3.5%; Score 422; DB 4; Length 294;

Best Local Similarity 26.9%; Pred. No. 6,6e-14;

Matches 115; Conservative 56; Mismatches 105; Indels 152; Gaps 17;

QY 895 KDNESLQDASLKYGNNSRLGMRCTVPSGSEPTSSDKNQAI CVPRRRLYYIKKI -VDW 953  
 DB 5 KNSGSI-DNCNAK--NRKKNEMQC-----DKNTFVDGNBEGVCMPPRRKSCICIHNLTLRE 55  
 QY 954 ATKTESPQASGEASSTSGSTTPPSKEALLKAFVESAIEFTFPLMHRYYEKKA VAGG 1013  
 DB 56 QYK-----NKYQLREAFYKCAKENTNLMDKTKNDKN----- 87  
 QY 1014 AGHGLPRVEEGSPEDYDEPKLKEGKIPDGFLRQMFYTLGDRYDILFSGSNDTTSVSKDTP 1073  
 DB 88 -----EAEELAKKGKIPBDFMRIMVYTTGDFRD--FCLEND--MGKQVD 127  
 QY 1074 SSSNDLNKIVLLASGSTEOREKKNKYKEIKNPKCKSTERSAPNLVSHPTWENNNGKY 1133  
 DB 128 KVK---KNINKVFNNSSK-----RGFKKID-----PENMMNENGPQ 160  
 QY 1134 IMHGVNALLTSKDKLAKVGEKKPKIENPENLMDANKKPKRPOYQYTNV-----KLDSNS 1189  
 DB 161 IWMGMICALIHAD-----TKDSIKKNDN-----YKYEKVTILLARDGDN 199  
 QY 1190 GTSPTTQOASSDNTPTTLTHFVKRPTYFRWFEEWGESFCREKRRKRLKQIKVDCKVENG 1249  
 DB 200 G-----MTLSEFAKKPKRLRMFVEMYDYCKERQKYLTEVASTGCKSIDG 243  
 QY 1250 DVGRCSGDGEACDSISTHDYSTVPSFNCPCGCGKHCSSYRKWIERRKKIEFHQSNAYGOOK 1309  
 DB 244 GQLKCD-----RGCNKNCDEYKCYKWKRRKKKEEWNLQDKXY----- 277  
 QY 1310 TDATRNNG 1317  
 DB 278 KDKRENKG 285

# RESULT 8

US-09-924-154-13

; Sequence 13, Application US/09924154

; Patent No. US20020127241A1

; GENERAL INFORMATION:

; APPLICANT: Sim, Kim L.

; TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use

; FILE REFERENCE: 05213-0465 43170-262105

; CURRENT APPLICATION NUMBER: US/09/924,154

; PRIOR FILING DATE: 2001-08-07

; PRIOR APPLICATION NUMBER: US 60/223,525

; PRIOR FILING DATE: 2000-08-07

; NUMBER OF SEQ ID NOS: 17

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 13

; LENGTH: 1421

; TYPE: PRT  
 ; ORGANISM: Mammalian  
 ; US-09-924-154-13

Query Match 3.5%; Score 421.5; DB 3; Length 1421;

Best Local Similarity 18.0%; Pred. No. 5.1e-13;

Matches 348; Conservative 272; Mismatches 558; Indels 755; Gaps 90;

QY 392 FFACSGYENMIDNQRKQFQKQYTKKEISDGGKRRKAVGGTTYKEYSFYEK----L 447  
 DB 17 YFAKARNEYDIKENEKFLDYVKEKFNELD-----KKKYGVNQYTDKKIFFIENKLDIL 70  
 QY 448 KND-----GYGT---VDAFLGL---NNBKACKDITDGGKINFKVNSGGVVG-- 492  
 DB 71 NNSKFNKRWKSYGTPDNIIDKNMSLINGNNEEMFN-----NYQSFLLSTSLIKONKY 123  
 QY 493 -----SOGTSGASGTNENKGT FYRSEYQCPCPCPGVOHKGNGOMERTKYKRWWS 544  
 DB 124 VPINAVRSLSLFLDRINNGRTSSNNEVLNCR---EKRRGMKMDCKKKNDRSNV 179  
 QY 545 KLYRPNKRWYLLKSLKLVK-----DMMLIKKN---WKEFLTLQN 582  
 DB 180 CI---PDRITQLCIVNLSIITKYTKETMKDHFIAASKESQLIKDKDNKYSKFCNDLK 236  
 QY 583 SSDGSVGSVYTTGAS--GNSSEKELYDEMKCYGNHGVOKYKNGVGEVBEDDDELKAGGL 640  
 DB 237 NSFLDYGLHLMGNDMDRGYSTKAE-----NKIQEV-----FKGAHG- 273  
 QY 641 CILPNPKKNKEVSAKSONNHADIQKTFHDFEYVVAHMLKDSIH----- 685  
 DB 274 -----FISHKIKNPKKMMNFRRELMAMLSBHNNINNCNIPQBELQITQW 323  
 QY 686 ---W-----RTRLKSCISDGKTKCRN-----GCNKKC--DC--FEKRVKQKET 723  
 DB 324 IKENHGEFLERDRSKLPKS-----KCKNNTLYEACEKCEKIDCMKRYDMIRSKF 375  
 QY 724 EWKPIKDHFKQEGIP---EGYFTLELILKQFLKEPDEEN--TENSIDAEAE--EL 776  
 DB 376 EWHTLSEKEYEYOK--VPKENAENY-----DIKISENKDQKVSLLNINCAEYSKCDG 427  
 QY 777 KHLQKILLENENNLAVVNACTBQKTLMDKLLNHLNDATK--CKDCPLPREDSGRGA 834  
 DB 428 KHTTLTVK-----SVLNG--NDNTIIEKKEHIDLDDPSFGC----- 462  
 QY 835 DPSPDIFIPREKEDDENEDDEVDVADDETAKEETGSAATDTTSLDVCPIVKYLT 894  
 DB 463 -----DKN-----SVDTNTKVMCECKPKYKLT 484  
 QY 895 KDNESLQDASLKYGNNSRLGMRCTVPSGSEPTSSDKNQAI CVPRRR-----RLY 946  
 DB 485 KD-----VCVPRRQELCLGNIDRIY 505  
 QY 947 IKKIIVMATKTESPQASGEASSTSGSTTPPSKEALLKAFVESAII-ETFFLMHRYKES 1005  
 DB 506 DKNLL-----MIKEHILALAIYESRILRKRYNKK 534  
 QY 1006 KKAVAQEGAGHGLPRVEEGSPEDYDEPKLKEGKIPDGFLRQMFYTLGDRYDILFSGSNDT 1065  
 DB 535 -----DDK-----EYCKIINKTFADIRDI--GGTDY 559  
 QY 1066 TSVSKDTPSSNDLNKIVLLASGSTEOREKKNKYKEIKNPKCKSTERSAPNLVSHQOT 1125  
 DB 560 W-----NDLSNKRKLVGKINTNSNYVHRNQND--KLFR-----DE 592  
 QY 1126 IMENNGKIYHGMVICALTSKDKLAKVGEKKPKIENPENLMDANKKPKRPOYQYTNVL 1185  
 DB 593 WKKVIKKQVKN--VLSWYFKDQTV---CKEDDIEN----- 622  
 QY 1186 DENSGTSPTTQOASSDNTPTTLTHFVKRPTYFRWFEEWGESFCREKRRKRLKQIKVDCK 1245  
 DB 623 -----IQPFPMFSEWGDYQCDTKMILETLKVBCK 653  
 QY 1246 VENGDVGRCSGDGEACDSISTHDYSTVPSFNCPCGCGKHCSSYRKWIERRKKIEFHQSNAY 1305

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Db      654 EK-----PCEDD-----NCKRKNCKYKNI5KKKEEYVNOAOY 687
QY      1306 GOOKDATARNNGNTEDEKFECKTLETWPAAKELEBKNGPCKTKNEYGDDIDFEDSKST 1365
Db      688 QEYQ-----KGNMYKMYSEF-KSIKREYVLLKKTYSKCSN-----LNFDPEKE 729
QY      1366 FOHTEY---CGBCPKFKTNCONGNCGVGLNCGDGSKI--DAKEIAKMSSTTDVVM 1415
Db      730 ELHSDYKKNKCTMCPEVK-----DVPISIRNNEQTSQBAVEE8TEIAHRTREPTD--E 781
QY      1420 RVSDNDTTFESDDLKDAACQAHNIIFKGIKDYWKKGVCYGVDCIGQTNINERTDOKEIYQ 1477
Db      782 RKNQEPAN-----KDLKN-----POQSGVE-NGTKDLLO 809
QY      1480 IRLAFKRWVENPLEJEDYKNIKINDKISHCIKKGESKCIKNGCEKSKCLEKMEIKKIAMEWNI 1533
Db      810 EDLGSRSREDEVTQGFQ-----VNHGIRKGE-----DQTLGK----- 841
QY      1540 KKRFPDQYENKQDPDYNV---KSILBELIPKIAVNDQDNYIKLCVFENSKGTLLISNT 1595
Db      842 ---SDALPNIGEPETGISTTESHBEHGNKQALSTSVDE-----DELSDT 884
QY      1586 ---QNKENDAIQMLKKGKAKACGCKBGEQSOQCKEPPPLPDEEDQNEPNTLEP 1655
Db      885 LQLEHDTKEND-----KLPLESSTIT-SPESSGSPTBEPPSIS-----EG 924
QY      1652 PKFCFPTTQPPBEKGEKTCGNKEEKKDEKKESEEPABEESGPALEBPAPTA8ESETETN 1711
Db      925 PK-----GNEQKKRD-----DLSKISVSP-ENSRPELDAQOT-SN 959
QY      1712 PPEPPGTPAAPSPSTAPBPPTDTPPLPBPQAD-----EPFD-----STLLQTTI 1755
Db      960 LLKLKGVDVISMPKAVIGSSPMDNINVTQGNISGVANSKPLSDPDYRDKNHEVEKHTS 1011
QY      1756 PFGVALALGSIAPLEFLKKKTKRASVGNLFOILOIPKSDVIDPILKSSNKRIIPVSRBYGK 1811
Db      1020 NSDNVQSGGIVNNVMEKELKDTLEN-----PSSSLD-----EGK 1055
QY      1816 TYIYMEG---OSDEDKVFAMSDT---TDVTSSESEYEELDINDIYVPGSPKYKTLI--- 1865
Db      1055 AHBEISEPNLSSDQD---MSWTPBPPLDNTSEET-ERISNNEYKVNBEREGERTITKXEY 1105
QY      1866 EVLEPESGNNTTASG---KQTPSPDTRNDIQNDGISPSKITDMEWNOUKKEPISNMLQNO 1922
Db      1110 DIVLKSHNRRSDDOGELEYDENSJLSTVWDESDA--EAKMKQND-----TSM5HNS 1155
QY      1922 PNDVPNDYTSGNSSNTNITTTSRHNVNDNNTVTTMSRDNMEENLLPSIHGNTLYSGEY 1987
Db      1160 SQHIESDQOKKDMKTVGDLGTT--HYONEISLVPYTGIDEK--LRESKESKIHKAEEB 1211
QY      1982 SYNVMNVM5MDIPINRDNVYSGIDLINDLSGKRPDIYDEVAKRENLEFGHEHNR 2041
Db      1214 RL5HTDHIKIN--PEDRNSNTLHLKOIRN-----ENEH 1244
QY      2042 TSTQNV-----AKTNSDPHINOLELPHKWLDRHRDMCEKWKAKEDJLANK 2086
Db      1247 LTNQUNINSQERDLQKHGFHTMNNNLHG6V5RSRSJINH--SHHGNRQDRGNSGNVLNM 1303
QY      2087 LKEEMKENINNSGKTYNSDNKPSHNHVLNLDVSIQIDMNEPKYKQELTINMDTNOCKSTM 2144
Db      1304 RS-----NNNNPNFNPISRYNLYDK-----KLDLIDYENRNDSTYKELIKKLAEI 1344
QY      2147 DTIILDDLE-KYND 2158
Db      1348 NKCEWEISVKTCD 1360

RESULT 9
US-10-153-273-4
; Sequence 4, Application US/10153273
; Publication No. US20020169305A1
;
; GENERAL INFORMATION:

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APPLICANT: Sim, Kim L.
Chitnis, Chetan
Miller, Louis H.
Peterson, David S.
Su, Xin-zhaun
Wellems, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESSES:
ADDRESSEE: Knobbe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/153,273
FILING DATE: 21-May-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/210,288
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36,516
REFERENCE/DOCKET NUMBER: NIH121.1FMDV1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1435 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-10-153-273-4

Query Match 3.5%; Score 418; DB 4; Length 1435;
Best Local Similarity 17.4%; Pred. No. 7.9e-13;
Matches 337; Conservative 259; Mismatch 555; Indels 782; Gaps 85;

QY 392 FPAAGSYEMINDQRQDPDKKKYTEISIDGGGRKKRAVGCTTKYEGYEKSPYK-----L 447
Db 17 YFKAARNEYDICKENEKFLDYREKENELD-----KKGTGVNQTKDKLFTIEKKLDIL 70
QY 448 KND-----GYGT---VDFAFLGLL---NNEKACKDITDGGKINFKEVNSGGVVGCG-- 492
Db 71 NNSKFKMKWMSYTPPNIDKMSLIMKHANMEMFNN-----NYGSLSTSLKQNKY 123
QY 493 -----SGGSGASGATNDENKGTFTYRSERYCQPCDGCVGQHKGNQMERKTKYKAKKRS 544
Db 124 VPINAAVSRILSLFLDSRLINNGHNTSSNNEVLNCR---EKKQKMKVDCCKKQDNRSNV 179
QY 545 KLVKPIPKKKVLLKSLKLVK-----DMWLKKQ---WKPFCLTON 582
Db 180 CI---PDRRIQLCTIVLWLSIIKTYTKETMDHPIEASKESQLLKKDNDKNSKFCNDLK 236
QY 583 SSDGVSQSVVTTGAS--GNSSEKKELDYDEMKCYKANEVQKVVNGEVEBDELKAGGL 640
Db 237 NSFIDYGHILAMGDMDFGGYSTKAE-----NKIGEV-----FKGAGH- 273
QY 641 CILPNFKAKVEASQNNHADIQCTPHDFPFTYVVAHLKDSIH----- 685

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Db 274 -----EISEHIKNFRKEMWNEBFEKLMWAMLSSEHKONJINNCNIPQOEILOITOW 323
Qy 686 ---W-----RTERKSCISIDGKTMKCRN-----GCKKC--DC--PEKVVYKOKET 723
Db 324 IKEMWGEFLBERDNKSLPKS-----KCKNNTLYACEKEKCLDPCMKRYDMIRKIF 375
Qy 724 EWPRIKDHFKTOEGIP-----EGYPTTLELILKLOFLKEDTEEN--TENSLEAEAE--EL 776
Db 376 EMTHTLSKEYEYOK--VPKENAENY-----LIKISENKDAKAVSLILNCDAAEYSKYCDC 427
Qy 777 KHLKILKLENNENLAVNAGTEOKTLMDKLNEHLNATK--CQDCPLPEEDSRGSA 834
Db 428 KHTTLVYK-----SVLNG--NDMTIKEREHIDLDFSKFGC-----462
Qy 835 DPSPIFIPREBEKEDDENEDDBEVRDDEBTAKETTESADTSTSLDVCPIVGYLT 894
Db 463 -----DKN-----SVDNTNRY-----473
Qy 895 KDNESLQDASLKYGNNRSLQMRGCVTPSGEPTTSSDKGALCVPRRR-----RLY 946
Db 474 -----MEC-----KNPYLISTD--VCVPRRQELCLGNIDRILY 505
Qy 947 IKKIYDMATKTESPOAGSGSEASTSGSTTPDPSKEALLKAFVESAI--ETFFLMHRYKEE 1005
Db 506 DKNL-----MIKEHILAIAYESRILKRYKYNK 534
Qy 1006 KKAVAOEGAGHLPRVEBGSPEYDEBDKLBGKI DGFRLQMFYTLGDPYLLFSGSDT 1065
Db 535 -----DDK-----EYCKIINKTFADIRDI--GGTDY 559
Qy 1066 TSVSKDTPSSNDNLKNIVLASGTEOREKKNRYKEIKNFRKSTERSAPNLVSHQOT 1125
Db 560 W-----NDLSNRLVGKINTNSKYVRNRK--KNDKLF-----DE 592
Qy 1126 WENNGKTYHGMVCAITSKDKIANGVEKKPOKINPENLWDEANKKPPQYQYTNVYL 1185
Db 593 WKKVIKKDVMN--VISWFKDKTV--CKEDDIEN-----622
Qy 1186 DENSSTPTTQOASSDTPTTLNHFVRYPRPYPRFEMRGSFORBRKRLKOIKVDC 1245
Db 623 -----IPQFPMFSEMGDYCODKTKMETLKEVBEK 653
Qy 1246 VENGDVGRSGDEACDSISTHDYVSPFPCGCKHSSYKWIETKIEFHKQSNAY 1305
Db 654 EK-----PEED-----NCKSKNSIKEMISKEKEYYNQAKQY 687
Qy 1306 GOOKTDATNNGANTEDKEFCXLETWPDAAKFLERLKNGPCXTNKEYGDDIDFEKSKT 1365
Db 688 QEYQ-----KGNVYKMYSEF--KSIKPEVYLKTYSEKSN-----INFEDFEKE 729
Qy 1366 FOHTY-----CGPCPKF-----TNCQNGCNGYGLNGN-----CDGKSIDA 1404
Db 730 ELHSDYKNCCTWCPEYKDVPIISIRNNEQTSQEAPEENTEJAHTETPISBGPKNQ 789
Qy 1405 KEIAXKRSSTTVNVRVSDNNTFEGDDLKACQAHANFKIGIRKDV--WKGYYCGVNDI 1462
Db 790 KE-----RDDSLKISIVSPENSREPETAOT--SNLLK--LKGVDVLSMKRVAIGSSP 839
Qy 1463 CEQTNINERTDKEYIQRALFKRVENFLLEDYNKINDKISHCIKKGSGKINCERKS 1522
Db 840 NNINVTGQDN-----ISGV--NS 857
Qy 1523 KCLERKIEKKIEMENIKRPNDOYENKQOPRYNVYSIIBELLPKIAVNVDDQNYKLCV 1582
Db 858 KPLSDVDRP-----KKLEBQ--NSDESEETVYV--HISKSPSINNQD-----897
Qy 1583 FENSKGCTLISNQNKNKENDAI-----CMKLGIVAKNCPGSPGSKQSDCKEPPP 1635
Db 898 -DSGSSATVYSSSSSTGLSIDDDKNGDTFYVTOPTANTEDVIRKEMADKDEDEKG---953
Qy 1636 LPDEEDQNPENLLEPPKFCPTTOPPEEK-----GGETGNKEEKDEKKEESEEP--1688

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Db 954 -ADEERHSTSE-----SLSPEKMLDNEGNSLNEHEVKEHTSNSDNVQSG 1001
Qy 1689 -----KESSGAPEAPAPTABSEETETNPPEPPGTGAAPBPSTPAPPTDPPPLRPQ 1741
Db 1002 GIVNMYVEKELKDTLENPSSSLDEGKAHEELSEBELSSDDQMSVTPG-----1048
Qy 1742 ADEPPDSTIIQTTIPFGVALALSGIAFLPKKTKKASVGNLFOJLOJPKSDYDIFTLKSS 1801
Db 1049 -----PLDNTSEETTERI-----SN 1063
Qy 1802 NRYIPLYSDRYKGTIYMEGDSDEDKYAFMSDTPDYVTSSESEYEELDINDIYVPGSPKY 1861
Db 1064 MEY--KNYER-----EDERTILKEVEDYVLSHMNRSSDDGELY-----1100
Qy 1862 KTLIEVLEPSSGNNTTASGKNTPSDTNDIIONDGPSSKTTDNEMQOKKEFISNMLONQ 1921
Db 1101 -----DENSDLSTYVDESEDA--BAKMKGND-----TSEMHNS 1132
Qy 1922 PNDVPNDYSGNSSTNITTTSRHNDNNTNTTMSDNMBENLLPSIHQNLVSGREY 1981
Db 1133 SQHTESDQKXDMKTVDLGT--HVQNEISVPTGEIDBK--LEBSKSKIHAKABE 1186
Qy 1982 SYNNMYNSMNDIPINRDNVYSGIDLINDSLGGKPIDIYDEVILKEREKNELEFTEMTKR 2041
Db 1187 RLSHTDIHKLN--PEDKNSNTLHLKDIRNE-----EMERH 1219
Qy 2042 TSTQNV-----AKTNSDPINHOLELPHKMLDRHRDCEKMKKEDILNK 2086
Db 1220 LTQCNINISGRDLOKGFHTMNLHGCVSEBSQINH--SHHGNRQDRGNSGNVNLNM 1276
Qy 2087 LKEEMKENTINSKGTNSDKPSPHNVLNTDVSIOIDMDQPKTKNETLNNDDQDQSTM 2146
Db 1277 RS-----NNNFMNIPSRLNYDK-----KDLDLYENRNDSTYKELIKKLAET 1320
Qy 2147 DTILDLK--KYND 2158
Db 1321 NCKENEISVXICD 1333

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RESULT 10
US-10-732-923-3351
; Sequence 3351, Application US/10732923
; Publication No. US20050108791A1
; GENERAL INFORMATION:
; APPLICANT: Edgerton, Michael D
; TITLE OF INVENTION: TRANSGENIC PLANTS WITH IMPROVED PHENOTYPES
; FILE REFERENCE: 38-15(52796)C
; CURRENT APPLICATION NUMBER: US/10/732,923
; CURRENT FILING DATE: 2003-12-10
; PRIOR APPLICATION NUMBER: 10/310,154
; PRIOR FILING DATE: 2002-12-04
; NUMBER OF SEQ ID NOS: 24149
; SEQ ID NO 3351
; LENGTH: 1985
; TYPE: PRT
; ORGANISM: Plasmodium yoelii yoelii
US-10-732-923-3351

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Query Match 3.4%; Score 414; DB 5; Length 1985;
Best Local Similarity 18.3%; Pred. No. 1,9e-12;
Matches 417; Conservative 318; Mismatches 778; Indels 764; Gaps 102;

Qy 121 LCNKFPMMNSNDSSKAGHDLAEVCMAYEGESIKTHYPRYDSKYP--GSDFPNCTMLA 179
Db 39 LYNNVVDLNLNSLSXVNTNKLIEL-----QEYKXKRYREKDIPIHNTYDT 84
Qy 180 RSFADIGIINGRDIYLNK--KKQNGKETEREKLEQKLKEIFKXIH-----NL 228
Db 85 RGSKN--NNQIKONNIYFNNAAILYNNANNNDINIKTYNNYNNIMNDIGNEINSKNL 143
Qy 229 -KDKRAQKRYNDEDPNPKYLRBDWMTANRETVWGAFTCSKELDSSYFRAFCNDTQGP 287
Db 144 PSNKNQNNYISEK-----GDMN--EKBLDHYSNFNFN--ND-----176

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Qy 288 SQTHKCKCDKDKGANKAPKAGDGVITVPTYPYVQYLWPEWMAADPCRRKKKLE 347
Db 177 -----NRKGSN-----ONDIINKKXKLE 196
Qy 348 NLEKCRGKDXDEYRCSRYNGYDCEQITSRKGVKMGKGTDCFPAGSYENMIDNOK 407
Db 197 SLMN--INKNDDEKXKINFVNNDIKNNY-----FDNFKNNKT 233
Qy 408 QPDKOKXTTKEISDGGG--RKKRAVGTTKJEGY-----EKSPYEKLNDGYVDAFL 459
Db 234 ENNEKXTKPPRRSSNVHTRKHDTGKISNYLYNADMOAKINYNEBKNGMRAVEKYI 293
Qy 460 GLLNNEKAXCQITDQKINPKFKNVNGGCVGSGGSGTSGAGS--TNDE-----NGK 508
Db 294 KKKENINHNNNNNHNLTNNDLNGNANGTTEMGNNSEIKXVNNKNTNNDNNNNNNYEN 353
Qy 509 TFF--RSEYOCPCDGVQHKGG-----NQWERTKYKXKMSKLYKPI NG 552
Db 354 TYQNRNE-----SNGKVEHDLGKLANPDLNDRKKHLLFNKNKMNESGTYTNKMDHIND 408
Qy 553 KMWLLKSLKVVKDMMLKQWKEFCITQNSSDG-----SVGSVVTGSGGNS 601
Db 409 KXENY--NFSFINENKITKN-----LTNNDDALNPKNFKKMDVKSIVCVCQASQOM 460
Qy 602 EKKELYDE-----WKCYKNEVQKXNVGSEVEDEDELKAGGLCILPNPKN 649
Db 461 ARLOHIEESROMLETEKMLLKKKKENEFKVKGLADKEKIDKHQIKKEKELISINKN 520
Qy 650 KEVSEAKS-----QNNHADIOFTPHDPFYVVAHMLKDSIHWRTRGLKSCISDGTMKCR 704
Db 521 NEIDKEKRYNSIKSKYDNAOKELD-----KMECLILN--KCK 559
Qy 705 NGC--NKKCDCEKXVQKQETEMPRIKDHFQTOGIEBGYYFTLELILKQFKEPTE 761
Db 560 SKLYEYDEKFGQFNKKIKIEIEREKIEBOEKKNI-----KXENMLNENRR 605
Qy 762 E--NTENSIDABEABELKHLQIKL--LENNENLAVNAGTEQKTLMDK--LLNHELNAT 816
Db 606 EIDEBKMMNMEKMELEMLKKELESLEKEKKKI--DCEYNNLONKEBELARNRNMLI 662
Qy 817 KCKDCPLPEBDKSRGSRADSPDIFIPREEKEDENEDDE-----DEVDDDE--E 866
Db 663 K-----ENBLKR-----IDKYNELIDELNKKKEIENDKXKMLNIDODEIK 705
Qy 867 TAKETEGSATDTTSLDVCPIGVKYLTKDNESLQDACSLKYGNNSLGWRCTPSEBP 926
Db 706 LNETNN-----IKKENEK-----EINY-----MKE 726
Qy 927 TTSSDKNACICVPPRRRLIYKLYDMATKTESPOASGSEASSTSGSTTPPDSKALKA 986
Db 727 EIKKERIMINDVEKMKRLMEDI-----ENTKNIMLEMEKENYTIKEIEIDKMKMKIN 782
Qy 987 FVESALIBTFPLMHRKEEKAVAOEGAGHGLPRVE--EGSPPEYDEBKLEKGI PDGFLR 1045
Db 783 IEDE-----KEKYTYLEKEFENULEKSELOKQYDDENNRLQAI----- 824
Qy 1046 QMFYTLGDRDILFSGSNDTTSVSKDTPSSSNDNL--KNIVYLASGSTEOREKXKXK 1102
Db 825 -----NNEKKKKINKE-----RDNLEKQKXY-----EDEFRNKCEKYE 857
Qy 1103 EIKNFRKSTERSANLVSHQOTWENNGKTYMHGWCALTSKDKIAGVEKXPKKXEN-- 1161
Db 858 E-----DIRKXNMLEEB--ENNMKY-----RIMEQOELNRY 888
Qy 1162 PENLMBANKPKPKPOYQYTNVKLDENSGTSPRTQTOASSDNTPTTLTHFKRPTYFRM 1221
Db 889 KKNVVLIDIEBKDKLYVOEKINL--EKENLVEKQIDIELKX-----FKN 933
Qy 1222 FEEWGESFCREKXKLLKQIKVDCKVNGDVGRCSDGEACDSISTHDYSTVPSFNCPCG 1281
Db 934 FKEKENENDIKIRIINLSQOKEDLNKEKENIEK-----EKDLBKIKYD----- 976

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Qy 1282 KHCSYRKWIERKXIEPHKQSNAYGOOKTDATRNNGN--TEDEKFECKTLETPPAKPLE 1339
Db 977 --LDAREGLNNDIKQWEEKSRKRLFDQBLEKIKKXKBELNANDREL--KTKEN--DLIEKGT 1031
Qy 1340 RLKNGPCKTNKEYG--DDIDPEKDSKTFQHTYECPKCFKTNQNGNGVGLANGCDG 1398
Db 1032 EIKKXENELNKKKXKSLDNELKS-----YSSKQ-----DR 1064
Qy 1399 DKSIDAK--ELAKXRSSTVDVWVMSDNDTNTFEGDDLKQACOHANI--FKGIRKDVWKG 1455
Db 1065 EKKJKEKTELOKXVDQLV-----DKNSLKEKEIQOMIEK----- 1102
Qy 1456 YVCEVDICEQTNINERTDGEKYEIQIRALFKRWENFLDYKINDKISHCIRKGSXCI 1515
Db 1103 -----EKELDBQ-----VIOI-----DRNSL-----BAKKQPL 1128
Qy 1516 NGCERNKXKLEKWIJEKKAEMENIKKRPNDQYENKQDPYVKSILELIRKIAVNDQD 1575
Db 1129 LIKEHEKQTE--YIOEOL-----KLHEQLKXKD-----KSLKE-----KE 1163
Qy 1576 NVIKL-----CVFENSKGCTLISNTQNNKENDAIQMLKKLGVAKXKCPKPSGEXQSD 1629
Db 1164 NEINLNLKLODCRKNKGAIIT--SLKXVNNRKLNNLSHSIVSKXVYKALGAKNKP 1220
Qy 1630 CKEPPLPEBEDQNPENTLEPPKFCPTTQPPREKGEETGKNE--EKDKEKSESEBP 1687
Db 1221 IIR--RTRKXSIVYNTNLE--INNSIYIISVINDNKNKFLKNGKNNLELSNEN 1273
Qy 1688 AKESGPAEERPAEASEETETNPPEPPTGPAAPSTPAPPTPOTPPPLRPOADEPPD 1747
Db 1274 FMOEG-----NNMNFKYF-----NDTYD 1293
Qy 1748 STIIQTTIPFGVALALGSIAPFLPKKTKASVGNLFQILOIPKSDY-----DIPTLKS 1800
Db 1294 NSMVD-----KNENINSSNSKNI-----IDYGNVNNBEPEN 1329
Qy 1801 SNRYIPYSDRYKGTIYMEGSDDEDKXAFMSPTTQVTSSESEYEBLINDIYVPSGX 1860
Db 1330 RNQOINSENDIYENK-----NNDKRNKKY-----PPKPR 1360
Qy 1861 YKTLIEVVLPEPSGNNTASGNTPSDTENDIIONDQIPSSKITDNEWNLKKEPISN--- 1916
Db 1361 AN-----LEKDSYVNNNGNKSERNDFNDLYN-----DNTYKKEKEDYDNMY 1405
Qy 1917 ---MLQNPNDVPNDYISGN--SSTNTNITTSKHNVDN--NTNTYMSKDN----- 1961
Db 1406 GDHNNYNNNDNHNNTKXGNYENNNNNNGYNNNSYNINNMNTNLIKMGSDLNDTISKXNG 1465
Qy 1962 -----EENILPESIHQNL-----YSGEYSYVNMV 1988
Db 1466 LRLNFGKXKQDBNNNMGLSLVNNLIESDIIIDTSNNGYHFDNNDKVGEMESNRMICI 1525
Qy 1989 NSMNDIPINRDNVYSGIDLINDLSGKGPIDYDEVLKRKENELFGTEBTKRISTONVA 2048
Db 1526 NKNINFDINDVNNINNNINSINSLKYKXNS--NVE-----ENDSFVEHNNKNNKXSC 1578
Qy 2049 KTTNSDPIHQLLELPHKMLDHRDMCEKXKXKEDILNKLKX--ENKXENINNSGCTVNSD 2106
Db 1579 QNNNENGMSN-----KNPEKESLNLDSLNVQNMOSVQOISMLMOSS 1621
Qy 2107 NKPSHN--HYLNTDVSIGIDM--DNPKTGELITNMDTNDOKSMTDPTLIDLEKYND--PY 2161
Db 1622 KXANNNTXKLSNISKATNSLKDTKRNNDVYTDNNESPKKEDNFEFLBELNDGKXN 1681
Qy 2162 YDPYE--DIIYHVD--VEKSSMDIYVDH--NNVTSNMADVPTKXHEMNIVN 2211
Db 1682 SNFTEKGDDEYVNMEXSLNDKSMWET--DHKNRNNYVTSKXMDRKVHTLKNNTNS 1737

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RESULT 11  
 US-09-924-154-15  
 ; Sequence 15, Application US/09924154  
 ; Patent No. US20020127241A1

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; GENERAL INFORMATION:
; APPLICANT: Narum, David L.
; APPLICANT: Sim. Kim L.
; TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use
; FILE REFERENCE: 05213-0465 43170-262105
; CURRENT APPLICATION NUMBER: US/09/924,154
; CURRENT FILING DATE: 2001-08-07
; PRIOR APPLICATION NUMBER: US 60/223,525
; PRIOR FILING DATE: 2000-08-07
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Patent version 3.1
; SEQ ID NO 15
; LENGTH: 1086
; TYPE: PRT
; ORGANISM: Mammalian
US-09-924-154-15

Query Match      3.3%; Score 396; DB 3; Length 1086;
Beet Local Similarity 19.8%; Pred. No. 7,7e-12;
Matches 267; Conservative 150; Mismatches 357; Indels 576; Gaps 65;

QY      85 KQNDVRSVGEQAGYDKKKK--CSNGM-----TCAPPRHLICNKNF-----PMN-----130
DB      25 KKKFIDTYSLYE-CGKKIKEMKMTCTDQFQSNLCAPIRRIQLCIVIIIFSENEEYI 83
QY      131 -SNDS--SKAKHDLAECMAKYEGE-SIKTHYPRKDYSGDFPMCTMLARSPADIG 186
DB      84 YKNDINNKKFENIL-----KAVKLESNLLVQKHNNENSK-----LCDDIRMSEFLYLG 132
QY      167 DIIRGRDLYLGNKKKKKQNGKETEREKLQKLEIKFKIHDNLKDYEAQKRRNGE-----241
DB      133 DIIRGRDLYLGNK-----TDYIKQFQKIFNN-----EYNNNLINDEL 170
QY      242 ----DPPNYKREDWMTANRETWGMAT--CSELDNSSFYRATCNDTGGGPGQTNNK 293
DB      171 NNEIENDEKNIKIKRKEWMEKTKEDIMEWTEHNDPTECKKFA-----214
QY      294 CRCDKQKANAAGKPRAGDQDVTIVPTYPDYLPQYLWFEEMADEPCRRKKKKLEMLEKQC 353
DB      215 ---KDE-----PQIVRMIEBMSKQPLDEKNTWMLFTL-----242
QY      354 RQKDKSDERYCYSRNGYDCEQTSIRKQYRWGKGCTDCEFPAGSYENMIDNQRKQPDQK 413
DB      243 ----RMTYN--ENMIIHNN-----CKQYNKWYQNNKKEM--271
QY      414 KYTKETISDGGKRRKAVGGTTTYEGEKSFEYK-----LKNQDGYTVAFGLNN 464
DB      272 ----TFLSNEFNKTFPERNVQIHSNIFKYEKENNVDIIFGTLLNY 312
QY      465 E--KACK--DITDGGKINFKEVNSGGGVVGGSGGSGAGSTNDENKGTFFYRSEYQPC 519
DB      313 EYNNCKEKEPELVSAKYLKAPNA-----KSPRIYKSK-----346
QY      520 PDGVOHKGQNGQMERKTYKKN--RW-----SKLYKP--ING--KMWLLSKLVKVD- 566
DB      347 ----EHEESVFGCGTKISKYKKNKNCYNNKVTPEBVCPPRQQLCGLYIFLIRDG 401
QY      567 ----MMILKKKNMK-----EFCIQNSSDGSVSV-----TTG 595
DB      402 NEEGLKDHINKANYEAMHLKEKYEYENAGGDKICNALISGYADIGDIVRGDVMRDINTNK 461
QY      596 AS-----GNSKEKE--LYDEM-----KCYKHNVEQKV- 621
DB      462 LBEKPOKIMGGSNSKKQNDNNRKNKMWKQKRNLIWSSMVGHIPKGTCKXKHNNFEKIP 521
QY      622 ----NVQGE--VEEDDELGAGGLCTLPNPKKNKEVSEAKSNNHADIOKTFHDFPY 673
DB      522 QFLRWLKEWGDDEFCEMGEVQLEKIC-----ENKNCSE-----556
QY      674 YVVAHMLKOSIHRKTRGLKSCISDGTMKCRNGCNKCCCFERKMYQKTEKMPKIDHFK 733
DB      557 ----KCKKACSS-----YEMKIKERNEY-----577

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QY      734 TQSGIPGGYVFTLEILIKLQFLKEDTEENTENSLDABEAEELKHLQKILKLENNLAV 793
DB      578 ----NLQSKKFDSBK-----KLNKNML--596
QY      794 VNAETQKTLM-----DKLNLHELNDAT-----KCKDC-----PL 823
DB      597 YNKFEDKAYLRSSKQCSNIEFNDEFITFPNNKYKACMVCENPSSKALKPITNNVPI 656
QY      824 PEEDKSR-----GRSADSPPIFIIPREKEDENE-----854
DB      657 ESKKSELSLTDKSNKTPNNSGGGNGYGDRIISKRDVYHNGPFEVSGEKEVPKIDAAV 716
QY      855 --DDDEBEVRDDEETAKETTBGSATDTTSLDV-----CPVKGVLTKDNESLQDAGSLK 907
DB      717 KTENEFTSNRNDIE--GKEKSKGDHSDPVHSKDINBEPQRYVVSBNLPKIEKMSSDSIP 775
QY      908 YCGNNSRLQMKVCYTPSGEPTSS-----DKNGAICVPPRRRLYIKY 950
DB      776 ITHIEAKGQSSNSDNDPAVAVSGRESKDVNLHPSRIKENEBOYIKTDESSKSEISKI 835
QY      951 -VDWATKTESPQASGEASSTSGSTPPDSKEALLKAFVESAAIETPFLMHRYYEKKAV 1009
DB      836 PSDQNNHSDLSQANEDSNQNKETINPSTKMLKEI-----HYK-----876
QY      1010 AQEGAGHGL-----PRVEGSPDYDPE-----DKLKEG-KIPDGLRQMFYTLGD 1053
DB      877 TSDSDDHGSKIKSEIEPEKELTEBSPITDKTESAAIGDKHESVYSADIFQSEIHN--D 934
QY      1054 YRDILFSGS--NDTTSVKDTPSSSNDNLKNIVLASGSTQERENKMYKEIKNFRKCS 1111
DB      935 NRDRIVSESVVQDSSGSSMSTESIRTDN-----KDFK--T 967
QY      1112 TERASPNLVSHPQTMWENNNGYIWHGWVCALTSKDKIAKGVKKRQKLENNENLWDEANK 1171
DB      968 SEDIAPISTNGH-----EKIG-----SSADD--RGEDEDXIIDKSENF--ENNK 1007
QY      1172 KPKPQOYTVNKLDENSGTPRTTQOAS 1201
DB      1008 S-----SHSDIKQSDNKGSTDYESLTERES 1031

RESULT 12
US-10-732-923-15035
; Sequence 15035, Application US/10732923
; Publication No. US20050108791A1
; GENERAL INFORMATION:
; APPLICANT: Edgerton, Michael D
; TITLE OF INVENTION: TRANSGENIC PLANTS WITH IMPROVED PHENOTYPES
; FILE REFERENCE: 38-15(52796)C
; CURRENT APPLICATION NUMBER: US/10/732,923
; CURRENT FILING DATE: 2003-12-10
; PRIOR APPLICATION NUMBER: 10/310,154
; PRIOR FILING DATE: 2002-12-04
; NUMBER OF SEQ ID NOS: 24149
; SEQ ID NO 15035
; LENGTH: 6761
; TYPE: PRT
; ORGANISM: Plasmodium falciparum
US-10-732-923-15035

Query Match      3.3%; Score 395.5; DB 5; Length 6761;
Beet Local Similarity 18.0%; Pred. No. 8,2e-11;
Matches 489; Conservative 380; Mismatches 907; Indels 935; Gaps 123;

QY      36 NYVSRKSLSLASLIGETAFVVMQMBESKYTELIBANSKKNPKCKQKQKNDVDRFSVK 95
DB      162 NFLDGHKKSIFLKS--RNNVNTFQSDINSSKTSISFSCSLKAM--NYANDINKYS--213
QY      96 EQAGYDNKKKCSNGMTCAPFERHLICNKN-----FPN-----NNSNDSYAKHDL 141
DB      214 ----NYNMMKINIL-----HKLMLLNKKNKDKKLFNTSDKKNYCYLNGDHILINERKDS 264
QY      142 IAEV-----CMAAKYEGESIKTHYK--YDSKYPGSDPFPMTMLARSPADIDITIRGRDL 194

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Db      265 FSDTYSYSGCRKRWKWKKK-KNIYNNMLFYDESI--NDYKYKMLEKTEFSSNSKIY---EL 318
Qy      195 YLGNKKKKQ-----NGETEREKLE-----214
Db      319 FENYKFKKKKILNIECSGNKYKGLRTNHPYANFNFTIRRLQ'SNVLGHFMISKNFN 378
Qy      215 -----OKLKEIFKXIHNDLKDEAQGRVNGDEDPNFYKLEBDMWTANBETVAMTCSKE 269
Db      379 RTICRTKRTIKCVNKKNNKNNKNNVI-----NMVYKKN--VDSIKGTFGNANNNGVH 426
Qy      270 LDNSYFPAATCNDTQSGPSQTHNKCRCDKGANAAGKPRAGDGYVTIVETYPDYVPOYLK 329
Db      427 HNNS---RRLNNTSKNNISNNNNNNMLKKKKGKNYKGS-----FDQIQLQ-- 468
Qy      330 WFEBAADPCRK-----KKKKLENLEKQCGKQKSDERYCS---RNGYDC----- 372
Db      469 --EDTTLDOAKKESIKTVSKNERKNNMNGHSHDNVYSKLNKMSNKRNNKNNCNPSNDMC 526
Qy      373 -EQTISRKGKVMGKGTDCFPAGCSYENWIDNOKRQPDOKKQYTKKEISDGGGRKKRBAVG 431
Db      527 NEDDVIK-----ICTTEBVNDEKKKKLSRHKKFVCE-----RKKGYI- 565
Qy      432 GTTKYEGEKSFYERKLDNGYGTVDATLGLLNNEKACKDITDGKINFK--EVNSGGGVV 489
Db      566 -----LONNNKCKKKXNDNIIINNNDVNNCGDI 595
Qy      490 GGGSGGTGASGTNDENKGTFRSEYCOBPCPGVQHGKGNOMEKTKV--KKRWSKL 546
Db      596 NDHNRKDYDTTEBQNKCPKILSINFIKCEDEKLEFEKIYNDWFLRIGIKVTKRKKYFLI 655
Qy      547 YKPINGKM--VLLKSLKY-----VKDMMILKKMKWEKCLQNSSDSGVSVVTG 595
Db      656 YKIVDSFPRILITFTEKLEKNIILQVMAAQDVTILCDKNVK-----IYSDP 700
Qy      596 ASGNSSEKELYDEMKCYKHNVEQVKNVQGEVE--EDDELKAGAGLCLIPNPKRKE--VS 653
Db      701 IYIRNNNTLYAIKFKLIFSLKTKMKKVKNNSEVNFDDBECK-----KEMKDNIS 749
Qy      654 EAKSONNADIOKTHDPFYVVAHMLKDSIHMTKRLKSCISDGKTKMCKNGCKKDC 713
Db      750 ESSKSNNGIEKKGMH-----765
Qy      714 FEKWKQKETEWEKPIKDHFKTOBGIPEGYFTTLELILKLOFLKEDTEBNTENSIDABEA 773
Db      766 ---VEKSEBHDMTSDSNKEDTKLEB-----RKKSNNVNIIDVDVG 803
Qy      774 EELKILQKILKLENENILAVNAGTEOKTLMDKLNLHEND--ATKCKDCPLPEEDKSRG 831
Db      804 EEEENVN-----NNDNN-----NDNNNDNNSDNNNDGSDTESCSKINSKYKG 851
Qy      832 RSADSPDIFLPRPEKEDDENEDDEVDREBETAKETEGSATDTTTLSDVCPVIGK 891
Db      852 K-----EKDVKENTDD-----KNLSDSNSNNSKKKFKV---LNK 883
Qy      882 VLTKNESLQ--DACSLLKYGNNSLRGMRCVTPSGEPTTSSDPK--GALCVPRRRRLYI- 947
Db      884 AIKONDKKKKYKKNKIBGNSNNMMILVNSNSSSTJTSNSSSKSNCNRKNNQOISIC 943
Qy      948 -----KKIYDMATKTESPOASGSEASTSGST-----TPPDSKALLKA 986
Db      944 SKMDEKNSBQKKKNIKKKKNT-----CNEGSKKDSITLNCVKKVKNKSDTKKQKGSKI 997
Qy      987 FVESAAITFLMHRYYKEEKKAVAQEGAGHLPRVEEGSPEDVPDKLKEGKIPDGL-- 1044
Db      988 NIKN-----EKKKKINNS-----KINKGRKGINKDK--GKGDNNNYVC 1034
Qy      1045 -----RQMFYTLGDIYDL--FSGSNQDTSVSKDTPSS--NDNLKNIVLLASGSTEQR 1095
Db      1035 LIYDEKKEFYENFKFKDIIIVIKGSDSTREYVDJTNNNNNNNK-- 1080
Qy      1096 EKNKRYKEIK-----NFRKCSSTERSAPNLVSHPDQTMENNKGXYIW 1135

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Db      1081 KMKLKFVKYKSLYLENIDIDTDEILFRPRPKFNCIIEESFENDYINYE--GEDGNFYVF 1138
Qy      1136 HGMVALTNSKDIKAKGVKEDQKIENPENMLDEA-----NKK----- 1172
Db      1139 KXKLAKIKKVTYIKNEITDSSDMYIE---LDBEKGFIYIGRVSEFLKDNKKAQOYKV 1194
Qy      1173 -----PKPPQY---QYTNVYKLDENSGTSBRTQTOASSDNTPTTLTHPVK--RPTYFR 1220
Db      1195 GIKYYSFKYQFPIHLENYKLYQTSOLS---KGNNNNNNNNNKENGPFVCGNYSYSR 1250
Qy      1221 WFEWGESFCREK-----KRLKOIKYDCYVEN--GDVGRSGSGDEAC---DSISTHYS 1270
Db      1251 -----ACSKSINSIYIKYKVVLEKXITNIIDDDNNNNINSCTIKYNNLSNENNL 1302
Qy      1271 TVPSNCPGCGCHGSSYRWKIERKKIEBHKSNAYGQOKTDATRNNGTDPDEFCKTJET 1330
Db      1303 CADKYLCDG-----NY-NMLEN--DVDEANNNDONK---KNDLVF-----SDYKG 1343
Qy      1331 WPDAAKFLERLKNGPCTKNKEYGDDI---DFEKD-----SKTPQHTYCGPCPK---F 1378
Db      1344 WYSPFYVNIKILN---NYKEFERDILEKCDKXKEMTDHVNNTLNKNEICISIGSKRILF 1399
Qy      1379 KTNCGNGCGVSGLNGCDGKSIDAKEIAQRSSTDVNRV-----SDNTNTPFGD 1432
Db      1400 MKGHDHYSCLS--SAIYDMCSEAEKKEIDE--NNCIDIYMGICKFCECKKYHANCLEBD 1455
Qy      1433 DLKQACQIANI-FKGIARDVWKCGVYCGVDICEQTNINERT--DGKEYIQIRALFKRWVEN 1490
Db      1456 VLTTFMFKNKLIMEYKFFIYKNSLKKERYFNNGKRRKRTNGKK-----KQNTIH 1507
Qy      1491 FLEDYNKINDKI-----SHCIKKGEKSGKJNGCEKNSKCLEKWIIEKKAEMENIKRPN 1544
Db      1508 KLEBDK--NSHVSTASNSHSIEVSSSESAAKGNEMKATATCKRTSCSALYKVKKKN 1565
Qy      1545 DQYENKQDPYV--VKS--LLEBLPKIAVNDOD---NVIKLCVFENSAGCTLIISNT- 1595
Db      1566 KNGENKNGENKNGIDIKNDIDIKNDIDIKNDIDIKNDIDIKNDIDIKNDIDIKNDIDIKND 1619
Qy      1596 -QNNKENAI--DCHMLKLGVAKNCPGK-----PSGE-----KQSDCKE----- 1632
Db      1620 DNNSSNDISLSDVDNNKNGSKKKKYRCINYPVSHSDITYKKFKCDKCRICYCE 1679
Qy      1633 -----P-----PLPD-----EB 1640
Db      1680 SIYDKQTPNVAANYICAKCMVAHAGSCCFPNVPIYLFMKKCDCLAKCNKNYSNLGYI 1739
Qy      1641 DQNPBENTL-----BPPKCPPTTOPPEEKGETCGNKBEKDEK----- 1681
Db      1740 NYNWEHLHLDCCINCYKEKKNFC-----IMCNBKYDEBDSKKVQCDVCKF 1787
Qy      1682 ---ESEEPKAE--SGPAABEAPPAE---SEETE-----TNFEPFGT 1718
Db      1788 WIHLSCDKNESRNIETLSNKNIDYKCPYCSIGTFIDKILERILYLLFLLDKYNF----- 1841
Qy      1719 GPAAPESTPAP-----PTPDTPEPLPOADEPFDSTILQTTIPFGVALAGSIAF 1768
Db      1842 -----THVFINNSIYRIYKIPANLYIMKKKIWEKYDITLIDLYPMLIINHAKVH 1895
Qy      1769 L-----FLKKTKASVGNLFOILQIPKSDVIDITLKSNNRYIYVSDRYGK--- 1815
Db      1896 MPNPTIYGNACIPEKGRVILIKMFMN-----TNEYLKNCIDCEVENEKNEINN 1944
Qy      1816 -----TYIYEGSDEDEKIVAFMSD-----TTDVTSESSEYE 1846
Db      1945 LDSFOIGHDNNNNNDNNINNKKMEGVNNE--SVIFMNDGCKNNKLYNKEGTMTVCVNMOSI 2003
Qy      1847 ELDINDIYVPGSPKYK-----TLIEVVLBPSGNNTTASGKNTESPTRNDIQNGI 1896
Db      2004 NKNLNDNNNNNNNNNNKMEVFCGGQNNIKLANEYIINKEGNIISNDNNMYDYVNNVQNGM 2063
Qy      1897 PSSKTTDENMQLKEPISNMLQNOPDVPND--YTSGNSSTNTNITTSRHHVNDNNTVT 1954
Db      2064 KMYTNTINDVNS-----SNVPWESVYNNKENFTINNSI---YNINENVTY 2104

```



MOLECULE TYPE: peptide  
HYPOTHEtical: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: internal  
ORIGINAL SOURCE:  
SEQUENCE DESCRIPTION: SEQ ID NO: 18:  
US-10-153-273-18

Query Match 3.1%; Score 379.5; DB 4; Length 362;  
Best Local Similarity 31.3%; Pred. No. 14e-11;  
Matches 93; Conservative 14; Mismatches 149; Indels 41; Gaps 5;

QY 113 CAPFRLHLCKNKNFNNNSNDSSKAKHDLAEVMAAKYEGESI-KTHYPKYDSKYPSDF 172  
DB 2 CAPFRLHLCDV---NLKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 58  
QY 173 PWCMLAASFADIGDIIRGRDYLIG--NKKKKKONGKETEREKLKQLKEIFKIHDLKD 230  
DB 59 QLCVLAASFADIGDIVGKDLVLYGDNKXXXXXXXXXXXXXXXXXXXXXXXXXXXX 118  
QY 231 KEAQRVNGDEDPNFKLRBDMWTANRETVMGAMTCSKELDNSSYFRATCNDTGGPSQT 290  
DB 119 XXXXXXXKGGD---FFQLREDMWTSNRETVMKALICHAXXXXXXXXXXXC----- 164  
QY 291 HNKCRCDKOGANAGKPRAGDGVITVPTFYFDYFQYLRFEMAEDEFCRKKKKLEMLE 350  
DB 165 -----XXXXXXXXXXXXXXXXXXXXXXXXXXXXVQYLRFEMAEDEFCRKKKKLEMLE 214  
QY 351 KCRGKDKSDERYKSRNGYDCEQITSRKGVKMGKCTDPCFAGSYENMIDNQK 407  
DB 215 KQ-----CXXXXXXCXXXXXXXXXXXXXXXXXXXXCTNGSVMCRMETWIDNQK 259

RESULT 15  
US-09-924-154-17  
Sequence 17, Application US/09924154  
Patent No. US20020127241A1

GENERAL INFORMATION:  
APPLICANT: Naitum, David L.  
APPLICANT: Sim, Kim L.  
TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use  
FILE REFERENCE: 05213-0465 43170-262105  
CURRENT APPLICATION NUMBER: US/09/924,154  
CURRENT FILING DATE: 2001-08-07  
PRIOR APPLICATION NUMBER: US 60/223,525  
PRIOR FILING DATE: 2000-08-07  
NUMBER OF SEQ ID NOS: 17  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 17

LENGTH: 1501  
TYPE: PRT  
ORGANISM: Mammalian  
US-09-924-154-17

Query Match 3.1%; Score 376; DB 3; Length 1501;  
Best Local Similarity 19.1%; Pred. No. 1.3e-10;  
Matches 300; Conservative 195; Mismatches 477; Indels 596; Gaps 70;

QY 85 KGNVDRESVKEQAGYDNKKM-----KCSNGM-----TCAPFRLHLCKNKNF 126  
DB 414 KNNDCSFNAQTDVYSSDKRFLCKEKPEKMKCDKNSFETVHHKGVCSPRQFCIGNL 473  
QY 127 PNMNSNDSSKAKHD--LLAEVMAAKYEGESI-KTHYPKYDSKYSGSPFMCTMLARSPA 183  
DB 474 -NYLLNDDIYVNHNSQLLEIIMASKQEGKLMKKGHTILDNQ-----NACKYINDSYV 526  
QY 184 DIGDIIRGRDYLIGKK--KKON-----GKETEREKLKQLKEIFKIHDLKDXB 232  
DB 527 DTXDVIIGNDLWNNNSIKVQNNLILFERNFQYKVRNKLKFKTIKE----- 573  
QY 233 AQRKYNQDEDPNFKLRBDMWTANRETVMGAMTCSKELDNSSYFRATCNDTGGPSQTHN 292  
DB 574 -----LKNVWVILNNKIKWESMRGCG--IDEVDQRRKTCG----- 605

QY 293 KCRCDKOGANAGKPRAGDGVITVPTFYFDYFQYLRFEMAEDEFCRKKKKLEMLEKQ 352  
DB 606 --RIDE-----LENNPQFRFQSMHAFCKEKEYMELKJLNDK 641  
QY 353 CRGDKSDERYKSRNGYDCEQITSRKGVKMGK-CTD--CFPAGSYENMIDNQKQF 409  
DB 642 CTGNN-----GKSLCODKTCQNNCTMNTQWYTYTRKLA 674  
QY 410 DKQKTYTEISDGGGRKRAVGTTKYGEKSF-YELKNDGYTVDAFLGLNNEKAC 468  
DB 675 EIQ-----SVKYDKDKRLFSLAQKN-----VTFP-LKENAKNC 707  
QY 469 KDTGKKNFKEVNSGGGVVGGSGGTSAGSTNDENKGFYRSEYCOPCPCGVQHK 528  
DB 708 SN-----IDFTKI----- 715  
QY 529 GNQWERKTKVKKRMSKLYKPIINGKMLLLSKLVKDMILK-KNWKFCITONSSDGS 587  
DB 716 --FDQDLKLFKRCSCM-----DTQYLVKNKEMLSIDNSBD-- 751  
QY 588 VGSVYTTGASGNSKELDYEMKCYKNEVQKNNVQGEVEDEDELKAGGLCLPMPK 647  
DB 752 -----ATDISKNGE-EELY-----VNNSVSVASGNKEIKSKDE--KQPE 790  
QY 648 KNKEVSEKSONNHADIOKTFHDPFYVVAHMLKDSIMHRTKRLKSCISDKTMCRNGC 707  
DB 791 K-----EAKQNGILTVITD-----KDSR----- 810  
QY 708 NKKCDCEFKKWKQKETEKP1KDHFKTOEG1PEGYYFTTLBLILKLOFLKEDTEBNTENS 767  
DB 811 NKG-----KDATDRKNSPENLKVQEHGNG-----ETIKEPPLPRESS 850  
QY 768 LDABEAEFLKILQKILKENENNLAVNAGTBOKTLMKLNLHENDTKCKDCLPRED 827  
DB 851 ETLQSOEQLAEAKQKQEBE-----PKKQEBEKKQKQ 885  
QY 828 KSRGSAADSPDIFIPREEKEDDENEDDEYVADDEBT-----AKETEGSAT 877  
DB 886 EEOKREBOE-----QKQOEBEEOKQEBEEOQ10DOSQSLDOSKGVASQONKISG 937  
QY 878 DTTSLDVC-P-IVGKVLTKDNESLDACSLKYGNNSHLGRVCYPSGEPPTSDKNGAI 936  
DB 938 QEONKSSPEVVPGETTSBNGSGDT-----KISSTEPENS----- 975  
QY 937 CVPPRRRLYIKKIYDWAITKTES--PQASGEASSTGCTTPPSKELLLAFVESAIE 994  
DB 976 -----VDRATDSMNLDPEKVHNHNSDPMTNTEPDAS----- 1008  
QY 995 TFLMHRKYEKKAV--AOEGAGHGLPRVEBSPEYD--PED-KLKEGKIPDGLRQMF 1046  
DB 1009 -----LKDKKEVDKAKKELQSTVSRIBSENEQDVOSTPREDPTVVBKV----- 1052  
QY 1049 YTLGDRDILFSGSNDTTSVSK-----DTFSSSNDLNKNTVLASG--STEOBERKNK 1100  
DB 1053 ---GDKXEMLSRPHATONSBSGSLNPDTDKITDGVVKEQELIGGSASATETSJNLK 1109  
QY 1101 YKEIKNFKSCSTERSAPLVSHPQTMENNNGKIYHGWVCAITSDKI---AKVEYKPP 1156  
DB 1110 PKDVEP---SHEISEP-----VLSGTYGEBESELKSKSIETYG 1145  
QY 1157 Q---KIENPENLMBANKKPPPOYQYTNVGLDENSGT-----SPRTQTOASD----- 1203  
DB 1146 ETDPSNSQEDATDVENSDNNNSLSN-SVDNOSVNLARBPDIASETEVVSEBEDSR 1204  
QY 1204 ---NTPTLTHFYVRPTYFRFWFEBWGSFCRERKRLKQIKVDCKVEN--GDVGRCSGD 1257  
DB 1205 IITTEVPSTT---VKPPEKX-SEEVGE-----KEAKEIKVEVVPRAIGEPNENSVS 1253  
QY 1258 GBACDSISTHDYSTVPSFNCPCGCGKCSYKWI-ERKKIEFKHOSNAYGOQKTDATANN 1316  
DB 1254 VQSPNVEDVEKETLISEN---NGIANDYHGRGNISEKDLIDIHILNRNAGSTIILDDSHRN 1310

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QY 1317 GNTFDEKFECKTLETPDPAKFLERLKNGPCCKTNKEYGDDIDFEKDSKTFQ-----HTE 1370
Db 1311 G-----EMTBSES--DVGEIQEHNFSTQCKDEKDF--DQIASDREKEIQLINIGHHE 1361
QY 1371 YCGPCPKFTKNCQNGCGVGLNGNC--DGDKSIDAKEIAMRSSTTDVWVRVSDNDTNT 1428
Db 1362 DEDVLKMDRTEDSMSD---GVNSHLYNNLSSSEKMEQYNNNRDASKDREIELNRSNTNT 1417
QY 1429 FEGDDLKDACQOHANIFKGIKRDVWVKCGVCGVDICEQTNINERTDGEYIQIRALFKRW 1488
Db 1418 CSNEHSLKYCOYMERBKDL-----LETCSE----- 1442
QY 1489 ENPLEDYVKINDKISHCIKGGSGKINGCEKNSKLEKWIKKIAEWENIKKRFDQYE 1548
Db 1443 -----DKRLHL-----C---CEISDYCLKFFNPKSIEYFDCTQKEFD--- 1477
QY 1549 NKDQPDYN 1556
Db 1478 ----PTYN 1481

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Search completed: December 29, 2005, 23:40:09  
 Job time : 275.987 secs



Db 1634 NGD-----MSTLHKVINDKQ-IOHLSYINAD 1660  
Qy 298 KOKGANACKP-KAGGDVTVPTYPDYVPOYLRFMEBNAEDRCRKKKKLEJLEKQCRGK 356  
Db 1661 NDKKONVNDATKEAEDLIHNPDTLDH-----KALQDLANKIDQAHNELNESRFX 1711  
Qy 357 DKSDEYRCSPNGYDC-----EOTI-----SRKGVRMGKGTDCFPACGS 397  
Db 1712 QALDN-----ALNDIDSLNSLNPQROTVDNINHVTLESILAQELQAKELND---AMKA 1764  
Qy 398 YENMIDNQRKQDKQKTKKEISDGGGRKRAVGGTTKTEGEXEPYE-KLKNQDGYTVD 456  
Db 1765 MWDSTMNQ-EQIRKSNNTYMEDLAQONAYNHAVDINNIIIGEDNATMPQIIKQATODIN 1823  
Qy 457 AFLGLNNEKACKDITDGGK---INPKEVNSGGVVGSGGSGTSGASGNDENKGTFRYS 513  
Db 1824 TAINGLNGDQKLQDAKTDKQOITNF-----TGLTEPQKQ----- 1858  
Qy 514 EYCOFCPCDGVQHKGNQWERTKVKYKRMWSLYKPNKGWVLLKSLKVVNDMMILKN 573  
Db 1859 -----ALENIINQOTSRANVAKQLSHAKF-----LNGKM-----BELKVAVAKASLVARQ 1902  
Qy 574 WKEPCLTONSSDGSVGSVTTTGAAGNSEKKELYDEMKCYKINEVOXVNOGEVEBDE 633  
Db 1903 NSNYINEDVSEKEAVEQALAKQBEIINSENNPTISSTDI--NRTIOEIN-----DAEON 1954  
Qy 634 LKAGAGLCILPMPKKNKEVSEAKSON-----NHADIOKTFHDPFYW-----VAHMLKD--S 683  
Db 1955 LHGENKL-----ROAQETAKNEIQMLDGLNSAQITKLQDIGRTTTKRAVYQKLEBAKA 2008  
Qy 684 IHMRTKRLKCSID-GKTMKCRNGCNKCD---CEKWNVQKETEWEKPIKDHFKTQEGIP 739  
Db 2009 INQAOQLOKQSLADKQATLNSSVYINDESEKLAAYDNAVSQAEOJLNQND----- 2059  
Qy 740 EGYFTTLELILQPLKEDTEBENTENSIDABEABELKLOKLIKLENNINLAV---VNA 796  
Db 2060 -----FTMDI-----SNIQAITOKVIOAKDS--LHGANKYLAQOASNNIINOSTYL 2104  
Qy 797 GTEOKTLMKLNH-----ELNDATKCKDCPLREEDKSRGSADSPDIF 841  
Db 2105 NDKQKQALNDLINHAOTKQOAVBIIAQANKLNEMKOTLKTIVEBGNSNHQOSK-----Y 2158  
Qy 842 IPRPEKEDDENEDDEVRDE-ETAKETTESATDTTTSIDVCPVIGV-LTKDN-- 897  
Db 2159 I-----NBDPOVNIYNDISIOGREILNGTTDVLNNKIKADAIQNIHLTNDLH 2208  
Qy 898 -----ESLQDACS-LKY--GGNSRFLGRCVTPSGEPF--TSSPKNAGICVPPRRRL 945  
Db 2209 GPOKLOKAOQDATTNEINYLTLNLSNQRQSEHDEINSPRTEVSNDLHAKALNEAMROL 2268  
Qy 946 -----YIKKIVDATKTESPOAGSEASTSGSTPPDSKEALLKAFVESAIETEF 997  
Db 2269 ENEVALENSVKLSIDNEDEAQAQNEYSHLOKAKOITINGVPSSTIDKATTIEDALLIELON 2328  
Qy 998 LHMRYKEKKKAAVQEGAGHGLPRVE-----EGSPYEDPBDKLEKGI 1039  
Db 2329 ARESLHGEQK-LQEAQNQAIABIDWLQALNPQVLAKEVLVNOASTKEVQALQKAKE 2386  
Qy 1040 POGFLKQMFYTL-----GDYDILFSGS-----NDTTS 1067  
Db 2387 LNEAMKALTEINKKEQIKASDRYVNASGLQANVNSALNYGSOIATTOPPELNDKVIN 2446  
Qy 1068 VSKDTPSSSNDNLKNTVLLA-----SGSTBOERK----- 1097  
Db 2447 RATOTTIKTAMNNNGSKLAEAKSDGNGSTIEHLQGLTOSQKQHLINOQTKQOYVDI 2506  
Qy 1098 -----MNKYKEIKN-----FRKCTERSAPN-----LVSHQPTW 1127  
Db 2507 VVNSKOLDSNMQLOQIVNNDNTVVKQNSDPINEDSSQODAYNHAIQAKDLIRAH----- 2562  
Qy 1128 ENNGKTIHMGVCAITSKDIAGVEKKPOKIE--NPENIMDEANKKPPPOQYQYVNVKL 1185

Db 2563 -----TIMDKNOIDAENIKQALNDLHSGNKLSF-DKXEASROQLONLN--- 2605  
Qy 1186 DENSQSPRTTQOTQASSDNTPTTLTHFVKRPTYYRFEWEGESF--CERKKRLKOIKVD 1243  
Db 2606 -----SLTNGQKO---TILNHFSAFTR--SOVEKIASAKQILNNTKALR-D 2647  
Qy 1244 CKVENGVGRCGSGGEACDSISTHDYSPVPFNCRCQKHCSSRXMTERRKKIEPHQSN 1303  
Db 2648 SIADNNEI-----LOSSRY-----FN-----EDSBQON 2670  
Qy 1304 AYGOQKTDATRNNGTNPDKFECKTLETWPAKFELERLKNGPCKTNKEYGDDIDFEROS 1363  
Db 2671 AYNOAVNKA-----KAIINDQPTPYMANDELQSLTNEVKQTKOJLHDDQ-KLANDK 2720  
Qy 1364 KTFQHTEXGCPKFKTNQONGCGVSLNGCDSIDAKEIATAKMSSTTDVVMVSD 1423  
Db 2721 TDAQATL---NALVYLNOAQRGNIETKVQNSN---SRPEYQVVOQLANQNDAMKDKLD 2773  
Qy 1424 NDTNTEBDDIKDACQAHNIFKGIKRVKVCYGVGVDICQOTNINERTD-GKEXIOTIRA 1482  
Db 2774 ALTG---NDALKQTSNYIN-----EDTSQOVNFEYTDYRGKNIABOT 2813  
Qy 1483 LFKHVENFLDYNNKINDKISHCIIKKGESKINCENKSKCLEKIEKIAEMENIKKR 1542  
Db 2814 NPNNSPYNI---NTIADKIT-----BAKNDLHGVOXLEBAQOQSI--NTINQMTGLNQA 2862  
Qy 1543 FNDQYENKQDPYVYKSLIIEBIPKIAVNDQDNYIKLCV---FENSGCTULISNTQNNK 1599  
Db 2863 QKEQK-NOEIQOTGRSEVHQVINKAQALNSMNTLRQSIINDEHEVKQTSYINETVQNO 2921  
Qy 1600 E--NDALIDCMKLGIVKAKNCPKRGSGEKQDCKEPPPLPBEDQNPBENTLEPPKFCPP 1657  
Db 2922 TAYNNAVDVRKOII-----NQSNTPTNPLJEERATSN 2954  
Qy 1658 TTQPEBEKGETCGNKKEKDEKKESEEPAKESGPAEAPAPYAESEETETNPEPBG 1717  
Db 2955 VKTSDALHGE-----RELNDKNSKTPAVNHDLNDLNOAQEALTHEEQA----- 3000  
Qy 1718 TGPAAPSTPAPEPTDTPPLRPOADEPSTIIQTTIPFGVALAGSIAFLFKKTKA 1777  
Db 3001 -----TIVSQVNNIYNKAKALND-----MKKULD 3025  
Qy 1778 SVGNLFOILOPKSYDIPILKSSNRYIPYVSDRKGTIYIMBEDSDBDKAFMSDPTD 1837  
Db 3026 IVAQODNVRQ-----SNNYI-----NEDSTPQNMVDTINHAOSIIDQVAN 3066  
Qy 1838 VTSSESEYEB-----LD-----INDIYVPGSPYKTLI--- 1865  
Db 3067 PTMSHDEIENALINNIKALINALDGEHKQOAKENANLINSINDLMAFORALINLVBA 3126  
Qy 1866 ---EVLPEPSGNNTTASGKNTPSDTRNDIONDG-----IPSSKITDNEWNO----- 1908  
Db 3127 QTRKAVAAQL--QSAQALNDAMKHLRNSIOSVROESKYINASDAKKEQVNHAVREVE 3184  
Qy 1909 -----LKEFEISNMLQ--NOPNDVFN-----DYTSQNSSTNT--NITTSRHHV 1948  
Db 3185 NIINEOHPLTDEKIIKOLDVANOANDLNGVELLDADKQVNAHOSIPTLMLHNOAQOQNL 3244  
Qy 1949 DNNTNTTMSR-----DNMEENIL-LPSIHQNLVSGE---EYSYN-- 1984  
Db 3245 NEKINNAVTRAVALIIGQAKLIDAMENLESIDKQVQVSSYVINBEDPVOGETYVNA 3304  
Qy 1985 -----VNMVNSMNDI--PINRDN-----NYSIGIDLINDSLSGKFPDI 2021  
Db 3305 VDHTEIILNQTNPLTSEDIDHAINEVNOAKQORQKQKIQOTIDLADKEIS--KLDDL 3362  
Qy 2022 IDEVLKRENELFGTEYTKTSTQVAVKTTNSDPIHNOLELPH---KLLDHRMCCKM 2077  
Db 3363 TSOQSSSISNOIY-TAKTRTEVAQAIERAKSINHAKMLANKIYKQADKVLDSRFLNEQO 3421  
Qy 2078 KKE-----DILNKLEEMN--KENINSGK-----TYNS 2105  
Db 3422 PEKEAYQOALINHVDSIHRQTNPEMDPYVINSITHELETAQNLIHGDDKLAIAKODDANV 3481







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Db      3662  TATPQSGDGTVEINLEARNVETPTVEPSPSIPTSGEQCEGSSSGSLEKS----- 3712
Qy      1460  VDICQNTINE-----RIDGKEYIQIRALFKRWENFLDYKINDXSHCKKSGSKC 1514
Db      3713  ---AAATYTSKVDPKLRTPKRGISASTWTK-----KEGPEIYDKIEAVWTSQCG--- 3761
Qy      1515  INGCENKSKCEKWEIEKIAEWENI-----KKRPNDQYENKQDQYAVKSL 1561
Db      3762  -----LENETITMISTANSOMGVPRHEKIDFQKDNFNAN--NNLDSSTIOTDNIM 3810
Qy      1562  BELI-----PKIAVNDODNVNVL-----CVENSKGCTLIANTQNNKENDAI 1605
Db      3811  SNIVLTHSAPCTEKNPNVAVSSGKTVLGHCVRDKQK--VLGGQCKTELIGIR 3867
Qy      1606  CMLKKLVKAKA-----CPKSPGSKQS-----DCKEPPLPDBE 1640
Db      3868  -QKSLPKIKATS PKDTFPFNHMSNTKASKMKQVSOSEKTKALTSSCVDVKSRIIVKN-- 3924
Qy      1641  DQNPENLBPFPPTPTOPPEEKGGTCGKKEKDEKKESEBPAKESGPAABPA 1700
Db      3925  --TPDNITIAVKACATOKOGPEKG-----KAKQLPSKLPVKVNS----- 3963
Qy      1701  PTASEEETETNPEPPTGPAPAPSTPAPTPTDPTPLPQADEPFDSTIIQTTPFGVA 1760
Db      3964  -TCVTTTTT-----ATTTTTTTTTTSCIVAKRSQ----- 3995
Qy      1761  LALGSIAFLFKKKTKASVGNLFQILQIPKSDYDIPLKSNRYIPVYSDRYKGTIYM 1820
Db      3996  -----LKEVCXHSI-----EYFKGIS--GETLKIY 4018
Qy      1821  EGDSDEDK--YAFMGDTDTVTSESESEYELNDIYVQSPKKYL-----IEV 1867
Db      4019  DRLSEEEKKMOSELDEBESTSRNTSLSETSRG-----GQPSVTTKSAPDKTEAPLKS 4073
Qy      1868  VLEPGENNTTASGKTPSD--TRANDIGDIPSSKITDN--EKNQKKEFISNMLQNOP 1922
Db      4074  KSEKSGSEKRSRRRGPOSPCERDIR-----MAIVADHLGISTWELAREL--NFSVBEI 4126
Qy      1923  NDV---PNDYTS-----GNSNTNTITT--TSRNVNDNNTNTTMSRDNMBE 1963
Db      4127  NOIRVENPNLSLSQSFMLKKWVTRDGKATDALTSLTSLTKINRIDIYV----- 4175
Qy      1964  NULLPSIHGMLYSESEYSY--NVMNVMSNDIPIRDNVNVGIDILINDLSGKPIDIY 2022
Db      4176  -----LLEPPIPDYGNISGTRSPAD-----ENNVEH-----DPVD-- 4205
Qy      2023  DEVLKRENELFGENTKRTSTONVAKTTNSDPIHNOLELPHKMLDR--HRDMCEKMKV 2079
Db      4206  -----GMQN--ETSGNLESCAQARVVGGL-----LDRLDDSPDQC----- 4240
Qy      2080  KEDILINKKEEWNKKNINSNGTYSNDKPSHNHVLANTDVSIQIDMDN--PRTKNEITNM 2137
Db      4241  RDSITSYLVKGEAGKEANGS-----HTEITPEAKTKSYFSPSQNDVQK 4284
Qy      2138  DTNQ 2141
Db      4285  STKE 4288

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RESULT 4  
US-10-793-626-3188

; Sequence 3188, Application US/10793626  
; Publication No. US20050255478A1  
; GENERAL INFORMATION:  
; APPLICANT: KIMMERLY, WILLIAM JOHN  
; TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS  
; FILE REFERENCE: PUS460US  
; CURRENT APPLICATION NUMBER: US/10/793,626  
; CURRENT FILING DATE: 2004-03-04  
; PRIOR APPLICATION NUMBER: 60/164,258  
; PRIOR FILING DATE: 1999-11-09  
; NUMBER OF SEQ ID NOS: 4472

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; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3188
; LENGTH: 1279
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: amino acid sequence
US-10-793-626-3188

Query Match      1.7%; Score 204.5; DB 6; Length 1279;
Best local similarity 18.0%; Pred. No. 0.00069;
Matches 283; Conservative 242; Mismatches 547; Indels 503; Gaps 75;

Qy      756  LKEDTEENTENSLSAEAEELKHLQKLIKLENNBNLAVVNAAGTEQKTLMDKLLN--HELN 813
Db      1  VKSEARQAVONKAN---EQINHTQNTPDATNTEKQALNVSABLAARVQAQINAEHTTQ 56
Qy      814  DATCKDCPLPE-----EDSKRGASADSPDIFIPRPEK-----EDDENEDDD 857
Db      57  GVKTIKDAITSLSRINQVVEKESARVA-----IQGAKTQQTQFINNDNADBE 106
Qy      858  EDEVADDEETAKETTESATDTTSLDVCYVAVKYLTONESLDAGSLKGTGANNRIGM 917
Db      107  EKEVANMLVIA---TKQKSLDINSL-----SSNNDVENA---KVAIGIEI--- 146
Qy      918  RCVTSPGSEPTSSDQNGALCVPRRRRLYIKKIYDMATKTESPQASGSEASTSGSTTPP 977
Db      147  -----ANVLPAATAVSKAKKDDIDQKLAQINQIQTHTQATTT--- 182
Qy      978  DSKBALKAPVESALETFFLMHRYKEEKKAVAOAGAGLPRVE--EGSPEDPEDKLKE 1036
Db      183  EKEKAIQLANQK-----NEAKTALQNEHSMNGVQAQKSNQIH-----E 224
Qy      1037  GKIPDGLQMFYTLGDYRDLIFSGSNDTTSVSKDTPSSNDNLKNIVLASGTEQRE 1096
Db      225  LVMPDA-----HKSDAKQSIDNKYNEOSNTINTTPD-----ATDEBKQ 263
Qy      1097  K--MKYKEIKNFRKCTSRSPALVSHQPTWENNKGKIYHGMVCAIISKOKIAGVKK 1155
Db      264  KALDLKLIADK-----AGYKRVDAQT-----NOQVS---DAK 293
Qy      1156  FOKIENPENLWDEANKKPKRPQYQYTNVNLDENSGTSPTTQTOASDNTPTTLTHFYVR 1215
Db      294  TEALDTITNIQANNAKKS-----ARVELDSKPEDLKR--QINATPRATE----- 336
Qy      1216  PTFRWFPEWGESFCRERKRLKOIYKDCVKNEDVGRCSGDGEACDSISTHDYSTVPSF 1275
Db      337  -----EKKDAILQRLNGKR--DEVK--NLINQD--RDRNEVEQHKNIQLELETI--- 380
Qy      1276  NCPGCGKACSSYRK--WIERKKIEPHKQSNAYGOQKTATANNGTPTDKEFKTLETMPD 1333
Db      381  -----HANPTKRSDALQELQTKFISQTEELINNKK--DATN-----EKKDE 418
Qy      1334  AAKFLERLKNPCKT---NKEVGGDDIDPEKDSKTFQHTEXGCPKPKTNC-----QN 1384
Db      419  AKRLLEISKN---KTTTINQOTNOYVADNAKDNQAMEIATII--PATITKIDAKTAIDKK 474
Qy      1385  GNCGVSGIANGCDG--DKSIDAKEI-----AKKRSSTTVVMKVSNDNTTFEGDDLK 1435
Db      475  AEOQVTIINGNDATDEKAEARKLVEKAKIEAKSNINSPDEREVNGAKTN----- 526
Qy      1436  DACOHANIFKGIKRDVWKCGYVCVDICEQININERTD-----GKEYIQIRALFKRWEN 1490
Db      527  -----GLEK-----INNQPSTQRTKNAKQEIINDKAQOLQIINNTPATTEE 569
Qy      1491  FLEDYRKINDIISHCIK---KGEBSKJNGEKNK---KCLEKWEIEKIAEWENIKRF 1543
Db      570  KOEATNRVNAQLAQLQINNAHSHQVNEBSKTSIATIKSVQRPVICKPRAINSLTGEA 629
Qy      1544  NDQY-----ENKQDPDYVYKSLLEELIPKIAVNDQDNVYIKLCEVENSIGCTL-- 1591
Db      630  NNQKTLIGNDGNATDEKAAKQVLVTOQLNIOQIKIH--ESTQDNQV-----DNVQAQAIT 683

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QY 1592 ---ISNTQNNKENDAIIDCMKKLGVKAKNCPKSGKQSDCKEPPPLPDEE----- 1640
D 684 AIKLIINAHAHKRODAIN-ILTNL-----AESKSDIRANQDATERKNTAIGSI 731
QY 1641 -----DONPEENTLEBPCKCPPTTOPPEEGK-GEYCG----- 1671
D 732 DDTLAAQANNINGANTNALVDENLEDDGKQRIYLSOTQTKQAADIAQAIQGORSTID 791
QY 1672 -NKEKKOEKKEESEEPKESGPAEAPAPASEETE--TNPEPGTGPAPAPSTPA 1728
D 792 QONQATTEKKQALRLNOETNGVNDRIQALANQNTDEKNNILE----- 837
QY 1729 PPTPPTPPPL---RPOADEPF-----DSTLIQTTIPFGVALAGSIARLF 1770
D 838 --TINVEPIYVKKANEIRKKAABQTTLINQDQATLEKQI-----ALGKLE--- 886
QY 1771 LKKKTKASVGNLFQILQIPKSDYDIPTLKSNRYIPYVSDRYKKTYYIMBGDSDEKXA 1830
D 887 -EVKNEA-----LNGVSO-AHSNNDVKIVE--NNGIAKISEVAP-ETIIKRNKQIEQ-- 935
QY 1831 FMSOTTDVTSSESEBEHINDIYVPGSPKYTLLEVLPEGNNTTASGKTPSDTEND 1890
D 936 -----DAQSQIDFTIAN-----NKSTBEKSAIDRVNV 964
QY 1891 IONDGIPSSKITDNEMNOLKKEFISNMLQNCPPNDVNTYSGNSSTNTNITTSRHANYDN 1950
D 965 AKIDAI--NININATTTQI-----VNDANK--SGNTSISQILPETA---VKT 1004
QY 1951 NTNTTMSRDNMEENLLPSIHGDNLYSGHEYSYNNMNSNNDIYNNDNNVYSIDLIN 2010
D 1005 NALALASEAKKNKNAIIDQTPNATABEKEBANNTKDRLOEADANILKAHTDEVNMIKN 1064
QY 2011 DLSGSGKPIIDYDEVLKKR-----ENELFGENTKRTSTONVAK-----TT 2051
D 1065 QAVQINAINAVQ--EYTKONAKNOLQIIONQKIIENTPDAITBEKKEANRLQNLTS 1122
QY 2052 NSDPI-----HNQLELFHMLDRHDMCE---KMNKEDILNKKEEWN-----KE 2094
D 1123 TSDIELANDHNEVD---QALDKAPKIEAIYPOVSKKRDALNAIQEAFNSGTQIEQ 1179
QY 2095 NINNSGKT--YNSDNKPSHNHVLNTD-VSIQIDMDNPKTKN-----E 2133
D 1180 EATNEEKTALKNQILNQAQKYNIDQASNKDVDSAKTRSIODIEQIOPHPQTKATGRH 1239
QY 2134 ITNMDTNOCKSTMDT 2148
D 1240 RUKERANQOOSTIAT 1254

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RESULT 5
US-10-485-517-131
; Sequence 131, Application US/10485517
; Publication No. US2005025629A1
; GENERAL INFORMATION:
; APPLICANT: University of Sheffield
; APPLICANT: Biosynex Incorporated
; APPLICANT: Foster, Simon
; APPLICANT: Mond, James
; TITLE OF INVENTION: Antigenic Polypeptides
; FILE REFERENCE: P100629W0
; CURRENT APPLICATION NUMBER: US/10/485,517
; CURRENT FILING DATE: 2004-02-02
; PRIOR APPLICATION NUMBER: GB 0118825.9
; PRIOR FILING DATE: 2001-08-02
; PRIOR APPLICATION NUMBER: GB 0200349.9
; PRIOR FILING DATE: 2002-01-09
; NUMBER OF SEQ ID NOS: 424
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 131
; LENGTH: 948
; TYPE: PRT
; ORGANISM: Staphylococcus aureus

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US-10-485-517-131

Query Match 1.6%; Score 192.5; DB 6; Length 948;  
 Best Local Similarity 20.9%; Pred. No. 0.0021;  
 Matches 212; Conservative 117; Mismatches 406; Indels 277; Gaps 55;

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QY 840 IFIIPREKEDDEDEDEDEVDREDETAKEETGSAITDITSLDVCPIVQKVLTXNES 899
D 33 IIVGMQGEKEAALAEKONNTV---EBSGSATSKASEYTT-----TNVNTTIBEQ 82
QY 900 LQDACSILKYGGNNRLMRVCVTPSGEPTTSDKGAICVPRRRLYIKIKIVDAITTES 959
D 83 SYSATSTEQSGSTQV---TTEAPKTVQAPK-----VERSRDLSEKAD--KETTG 131
QY 960 PQASGSASSTGTTTPSDSKALLKAFVESALIEFTFLMRHYEKKAAVQASGAGLP 1019
D 132 TQVDAQPSNV--EIKPRMKSTDTVAAEKVV-----EETKATGDTVTK--V 178
QY 1020 RVEBGS-----PEYDEDDKLG-BGKIPDGFRLQMFYTLDDYRILFRSGSNDT 1065
D 179 EVEBGSSEIVGHKQDTNVNPNNAERVTLYKWMKGEGI-----KAGDYFDFTLSDNYET 232
QY 1066 TSVS---KDTPSANDMLKNIIVLASGSTQGEEREMKYEIKNFRKCTERSAPANLVSH 1122
D 233 HGISTLRKVPRIKSTDG---QWATGEIIGERKRYRTFKKYQVEKQDLTLESLNLFID 288
D 289 PTVTQKQONQV-----EVKLG-ETTVSKIFNIQYLGVDNMGVNTANGRIDT 335
QY 1169 ANK-KPRPQVQYNTNVLKDNSGTSPTTQVQASDNPITLTHFVKRPTFRFPEEGE 1227
D 336 LNKVDGKFSHPAYNK--PNNQSLSSVTVQVTKGNKPG-----VNNPTV----- 378
QY 1228 SFCEERKRLQIYDKCVEN-----GPVGRSGDGEACDSISTHDYSTVSF-----NC 1277
D 379 -----KYVHTISDILAESVYAKLDVDSGF--DVTDMMSL-DPTNGSIGSLNPNL 427
QY 1278 PGCGNGCSSYRKWIERKKIIEPHKQSNAYGQK---TDATNNGTF-----DKE 1323
D 428 DQSKNYVYIKGYVDSNASNLEFQHLFGYNNYYTSLTWKNGVAFYSNNAQDGKDKL 487
QY 1324 FCKTLE-TWPDAAFLERLKNQPCPTNKYGGDDIDFEKDSKTQHTYCCPCKPCKTNC 1382
D 488 KEPITIEHSTPIELEF---KSEPPVEKHELTG-TIEESNDKPIDF-BY----- 530
QY 1383 QNNGCVSGLNCGCGKSIDAKET-AKRSST-----TDVWKRVDNDTNTFEGDDL 1434
D 531 ---HTAVGARGHAEGTIETEDSDIHVDPESTHNSGHADV--EYEDTINPGGS--- 582
QY 1435 KDACOHANIFKGIKRDVWKCGYVGVDCIQTINERTDKEYIQRALFK----- 1485
D 583 -QVTTESNLVE-FDEDSRK-GIVTGA-VSDHTTIE--DTXEYTESMLIEVLBELPREH 635
QY 1486 RWENFLDYNKINDKISHC--IKGEGS-KCINGCERKSKCLEKWE-KKIAEMENIX 1540
D 636 GQAQGPRIEITENNHHISHGIGTENGHNGVAVIEIENSH---VDIASEIGYEGQ 690
QY 1541 KRFNDQYE---NKQPDY---NVKSTIEBLIPKIAVVDNDQVYLKCVFENSKGCTLIS 1593
D 691 NSGNSFEEDBEDPCKTEGGNIYIDIDFDSVQI--HGQNN----- 730
QY 1594 NTQNNKENDAIIDCMKKLGVKAKNCPKSGEK-----QSDCKEPPPLD-----BE 1640
D 731 QNGSFEEDTEKD-----KPKTEQGNIIDIDPDSVPHIHGFNKHTEIIEE 775
QY 1641 DONPEENTLEBPCKCPPTTOPPEEGKCGKKE--KQDEKKESEBPAKESGPAE 1697
D 776 DTNKD-----KPVYQPGHNSVDFEEDTLPOVSGHNEGQQTIEEDTTPIV 821
QY 1698 EPAPTAASEETETNPEEPGTGPAPAPSTPAPEPTDPT---PPLRPOADEP 1745
D 822 PPTPPTPEVPSBETPTPTPEVPSBETPTPTPEVPSBETPTPTPEVPSBETPTPTPAKEEP 873

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RESULT 6
US-11-060-005-4
; Sequence 4, Application US/11060005
; Publication No. US20050260693A1
; GENERAL INFORMATION:
; APPLICANT: Irwin H. Gelman
; TITLE OF INVENTION: TUMOR SUPPRESSOR GENE
; FILE REFERENCE: A30558-A-FWC-A-A 070156.0597
; CURRENT FILING DATE: 2005-02-17
; PRIOR APPLICATION NUMBER: US/11/060,005
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: 08/978,277
; PRIOR FILING DATE: 1997-11-25
; PRIOR APPLICATION NUMBER: 08/665,401
; PRIOR FILING DATE: 1996-06-18
; PRIOR APPLICATION NUMBER: 08/635,121
; PRIOR FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: FASTA for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 1596
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-11-060-005-4

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Query Match      1.6%; Score 191.5; DB 7; Length 1596;
Beet Local Similarity 18.2%; Pred. No. 0.0047;
Matches 320; Conservative 214; Mismatches 603; Indels 619; Gaps 83;

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QY 464 NEKACKDTDDGKINPKFVNSGGVVGSGGTSASGNDENKGTFTFSEVQCPDGC 523
DB 109 NSTAVEDITKQOQEBTSEITE-----QIPSENNVE-----EMVQPA----- 145
QY 524 VQHKGNQWERTKYKAKRMSKLYKPIKNGKVLTKLKLVND-----MMILKKNM 574
DB 146 -----ESQANDVGFKKVFKFVGPFT-----VKDKNKESPTVQLLVKQDE 187
QY 575 KEFCLTONSSDGSVG-----SVYT-TGASGG-NSEKKELDEWKCYKQNEVQKVVNOG 625
DB 188 GE-----GASASVAGDHQBPSEVETAVGESASKESELKQSTKQEGTLKQGSSTEPL 241
QY 626 EYEEED--DDELKGGAGGLCTLPNPKKXKVS---EAKSQNNHADDQKTHDFYI--WVAH 678
DB 242 QAESDQAAEEBAKXDG-----EKKQEKPTKSPSPSPVNSETTSSFKFPTGWMAG- 294
QY 679 MLKDSIHRTKRLKSCISDGKTMKRCNGCNKCCDCEKVVQKQETEMKPIKDHFTQDGI 738
DB 295 -----WRKK-----TSFK-----KSKEDDLETAERKKEQBAEKVDEBEKX- 330
QY 739 PEGYFTTLELILKQLFKEDTEENTENSIDAEBABELNHLQIKLENNENMLAVVNACT 798
DB 331 -----TERPASEBQEPALBDTDQARLSADYEKV-ELPLEDQVGLBASS 371
QY 799 EOK-----TLMDYKLANH-----ELNDATKCKDCPLPREDKXRGKRSAD----- 835
DB 372 BEKKCAPLATEVDEKEMEAHQEVAEVAHVSTVEK-----TEEBQGGGEGEAGVVEGTGS 427
QY 836 -PSPIFIPTPR--PEEKEDEN-----EDDDDEVD-----DEETAKETEG--SAND 878
DB 428 LPPEKLAEBQVQEAEPALBEMKSRKEMKVGSGDHTQLTDLSPREKTLPKHEGIVSEVE 487
QY 879 TTTSLVCPVIGKVLTKDNESLQDACSLLKYGNNRSLGWRVCTPSEGEPTTSDKNGALCV 938
DB 488 MLSQGERIKVQGSPLKK-----LFSSSGLK-----KLSGKKQKGRGGGDE 530
QY 939 PRRRRRLYIKKLVDMATKTESPOAGSEASSTSGSTTPPDSEKALIKAFVESALETFTPL 998
DB 531 PEEYOHIIH-----TESPE-SADEQKGSASSSPREBT--TCLKGPLE----- 572
QY 999 WRYYEKKAVAQEGAGHGLPVEBGSPEYDPEDKLKEGKIPDGFLRQWY-----T 1050

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DB 573 -----APQDQ-----EABEGTTS-DGEKK-REGITPMASFKQVTPKGRVRPS 614
QY 1051 LGDYRDLFSGSNDTTSVSKDTPSSNNLNKNIVLLAAGSTQOEKKNKYEIKGNPKC 1110
DB 615 ESDKEEBELKVKASATLSTDSIVSEMDEBVTIV-----GEBQKEBERK-----RIV 660
QY 1111 STERSAPVLVSHPQTMWENNGKIYHGWVCAVLTSSKDIKAGV-----EKKPOKIENPENLM 1166
DB 661 DTSVS-----WEALICGSSKKRARKKSSSDDEGPRTLGGDSHRA 701
QY 1167 DEANKKPRPOYQYTNVXLNDSGTS--PRTT--QTQASSDNTPTTLTHFVKRPYFNF 1222
DB 702 BEASK-----DKEAGTDAVPASTQEDQAQSSSPER-----AGSPSEGCYV 743
QY 1223 EEWGSEFGR-----ERKKRLKQIKNDCKVNGDVGRCSSGGEACDLSITHDYVPSFNCG 1279
DB 744 STW-ESFRLVTPRKK--SKSLBEKABDSVEQLSTEIE-----PS 782
QY 1280 CGKHCSSYRKMI--ERKKIBFHKOS-----NAYGQOK 1309
DB 783 REESWVSIIKKEIPIGRKRGADGKQEQATVEDSGVEINEDDBNVAVPPLSEYNVEREK 842
QY 1310 TDATRNNGNT-----FDKEFCXTL----- 1328
DB 843 MEA-----QGTNELPQLLAGVAVYSEBLSTKLVTHTVSAVIDGRAVTSVERSPSWISAVT 899
QY 1329 -----ETWPDAAKFLER--LKNGPCKINKEVGDD-----IDPEKDKTQH 1368
DB 900 BPLEHTAGEAMPVEVEVEKDIIEETVLTQTLPEGDADHDVMTSEVDFSEAVTATE 959
QY 1369 TEYCGPCPKFTNCGNGCGVSLGNGCDGKSIDAKEI--AKMSSTTDVYMRASDDMT 1426
DB 960 T-----SEALTEVTERASGAERTTDVMSAVS----- 986
QY 1427 NTFEGDDLKACQAHANIFKGIKIDVWKCGYVCGVDICQTNINERTDEKEYIQLRAPER 1486
DB 987 ---QUTSDPTTEATPVQEVESGVL-----DTEBER------QTQALIQ 1024
QY 1487 WVENLEBYNNKINDKISHCICKGESSKC---INGEKRSKCLEKKIEKKIAMENIKKRF 1543
DB 1025 VADRYKESQV---PATQTVOR-TGSKALERKEVEEEDSEVLASKEKDVMPKGVQEG 1080
QY 1544 NDQYENKQDPYNNVKSILEELIPKIAVNDQDN-----VYKL-----CVF 1583
DB 1081 AEHLAQSEGTQATPESLE--VPEVTA--DVDHVAQCQVYIKLQQLMEQAVAPESSETLTD 1136
QY 1584 ENSKGTLLISNT---QNNKENDALIDCMKCLKLVKAKNCPKRGSGEKQSDCKEPPPLP- 1637
DB 1137 SETNGSTPLADSDTADGTQOQBETIDSDQSKATAVROQVTEEBAAATQKEBPSTLPNNV 1196
QY 1638 --DEEDONPEBNTLEP----- 1651
DB 1197 PAQEBHGEPGRDVLIEPTQOELTAAVAVPLAKTEVGQGEVDMLDGEKVKEBQEVFVHG 1256
QY 1652 --PKFCPTTQPREKXGETGNKE--EKQDKEKESBPAKESGPAABEPAPTAESBE 1707
DB 1257 PNSQADADVTYDSEVMVAGCOEKESTVQSLSEEGEMETDVEKREKTEPEQVSBGE 1316
QY 1708 TETNFPBEPPT-----GPA--APPSTPAPPTDPPTPLPQADEBFDSTI 1750
DB 1317 QETAPABHEGTYGKRVLLDMWPSSEKALSLIGSPSLPDDKAGCIEVQV-QSLDITV 1375
QY 1751 LQT-----TIPGVYALMAGSI-----APFLPKKTKTASVGNLFOILOIPKSDYIPIYK 1799
DB 1376 TOTAEAVKVIETVVISSTGSPBECVGAHLPAEKSSATAGHW-----TLQ 1421
QY 1800 SSNRVIPIVVSRYKGYKTYIWEGDSDEDKDYAFMSDTTNTSSSEB--YEELDINDIYVFGS 1858
DB 1422 HADTVPLGEPESQASSTIYITPAESTLHPLDQ--EISASQRRSSEBEPDAGPAD 1479
QY 1859 PKYKTLIEV-----LEPSGNNT-----ASGKNTPSDTRNDIQNDGIPS 1898

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Db 1480 GKESTAIEKVLKABEILLESESKNKIVLVNLTQVADQFARTETAPETHAVDSQTV-VPA 1538  
QY 1899 SKITDNE-----WNOLK 1910  
Db 1539 CRUDSEPRRCWTMMK 1554

RESULT 7  
US-10-793-626-1780  
Sequence 1780, Application US/10793626  
Publication No. US20050255478A1  
GENERAL INFORMATION:  
APPLICANT: KIMBERLY, WILLIAM JOHN  
TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS  
FILE REFERENCE: PUS480US  
CURRENT APPLICATION NUMBER: US/10/793,626  
CURRENT FILING DATE: 2004-03-04  
PRIOR APPLICATION NUMBER: 60/164,258  
PRIOR FILING DATE: 1999-11-09  
NUMBER OF SEQ ID NOS: 4472  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO: 1780  
LENGTH: 1155  
TYPE: PRF  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: synthetic  
US-10-793-626-1780

Query Match 1.4%; Score 174.5; DB 6; Length 1155;  
Best Local Similarity 18.7%; Pred. No. 0.026;  
Matches 251; Conservative 140; Mismatches 492; Indels 459; Gaps 60;

QY 1063 NUTTSVKRTPSSSNDNLK---NIVLASGSTQER-EKMKYKXIKRFRKST----- 1112  
Db 56 NOLESAKEOKSGSRNESSKLNQVLDKSHSSEKTTNNVNNATEVKVLEADPTSDVSKP 115  
QY 1113 -----ERAPNLVSHPQTWENNGKYIWHGMWCAKLSKDKIAKVEKKPKIENPE 1163  
Db 116 KANEAVNNESTKPKTTEAPV---NEESIAETPKTSTTOD---STRKKNPSLKDL 167  
QY 1164 NMDEANKKPKPPQYQYTVNKLDE-----SGTSPRTQTOA---SSDNTPTTLTHF 1212  
Db 168 NSSSTSKSKTDEHSTQAOQSTNKSNDJTNDSPTOSEKTSQANNDSIDQSAAPSKOL 227  
QY 1213 VRRPT---YFRWFEWGESFCREKRRKAK--QIKYDCVEN-----GDVGRCSGD 1257  
Db 228 DKRPSQKRYKTKFNDPTQDVEHTTTTKLTPSISTDSVNDKQDYTRSAVASLGVDSNE 287  
QY 1258 GEACDS-----ISTHDY-----S 1270  
Db 288 TBAITNAVDNLDLKAASREQINEALIAALKKDSNPDIYGVDTPLALNTSOSKSPHKS 347  
QY 1271 TVPSFNC-----PGGKHCSSYRKWIERKIEKIEPHKOSNAYGQOKTADATRNNGNTFDKEF 1324  
Db 348 ASPBNMLMSLAEPNSGKAVNDKVK-ITNPTLSINKSN-----HANN----- 389  
QY 1325 CTKLETWPAAKFLERLKNKPKCTKNEYGGDDIDFKSKTQHTREYCP---CPKFT 1380  
Db 390 ---VIMPTS-----NEOFMLKANVELDSDIKSGDFTIKYGGYIRPGLELPAIKT 437  
QY 1381 NQONGCGVSLNGNCDGSKSIDAKIARMSSTTVNVRSD---NDNTPE----- 1430  
Db 438 QLRSKD-GSIVANGVD-----KTNNTTTTTFNNYVQYNTIGSPDLATTPRK 485  
QY 1431 GDDLKACOH-----AN-----IFGIRKDVWKCVCVGDICEQTNINERTDGE 1476  
Db 486 ETKAIKONQYPMVEVTIANEVKKDFIVDGNKKDNTTAAVANVD-----NVNKKNEV 540  
QY 1477 YIQIRALFKRWENFLIEDNKINDKISHCKKGEGSKCINGCKSKSKLEKTIKELIAW 1536  
Db 541 YL-----NONNONPKYAKYFSTVKNKFIPIG-----EVKVEV 573

QY 1537 ENIKRPNDOYENKQDPYVYKSIIEELIPKI-----AVNDQDNVYKLCVF 1583  
Db 574 TDTNAMY-DSE-NDLNSSNVKDVTQSFTPKVSDGTRVDINPARSMANGKRYIVTQAVR 631  
QY 1584 ENSKGCFTLISNTQNNKENDALDCKLKKLGVAKKCPKPSGSEKSDCKEPPPLDDEQON 1643  
Db 632 PTGTG-----NVYTERWLTLDG--TTNTNDPYRGTKSTVYTYLNGSSTQAQDN 677  
QY 1644 PEENLT-----LEPPKFCPTTPPEEKGETCGNKEKKEKESEREPKASEGPAAE 1698  
Db 678 PTYSLGDIWMLDKK---NGVQDDKQ--LAGYVYTLKOSNNRELQRTVTDDSGHYQFD 732  
QY 1699 PAPFAESEETNPEPPGTPAAPS--TPAPTPPTPPPLRQADPEPFSTLQTTIP 1756  
Db 733 -----NLONGTYVEFAIPDNYTPSPANNSTNDAI--DSIDERDGT----- 771  
QY 1757 FGVALALGSIAPFLFKKTKASVGNLQIOLIPSDVDIPILKSNRIIPVYSRDKGT 1816  
Db 772 RKVVYAKGTI-----NNADNMTVDTG---YLTPTKYNVD 803  
QY 1817 YIY-----MBGSDDEDKYAFMS-----DT--TDVTSSESEYE-----ELD 1849  
Db 804 YWEDTNKQGIQDNEKISVVKYTLKKNKNDITGTTTDSNGKYEFTGLNGDYTIEFE 863  
QY 1850 INDIYVP-----GSPKPK---TLIEVYLEPSGNNTASGNTP-----SDTRND- 1890  
Db 864 TPEGTYFKNGSGDEGKDSNGTKYTVVKADNKTIDSGFKPIYNGDYWEDTNKDG 923  
QY 1891 IQND---GIPSSKIT--DNEMOL-----KKEFISNMQLONGNDVNDYDNGS 1934  
Db 924 IQDSEKISGVKYLKDKKNALGTTTDDASGHYQFGLNGSYTTEFTPSGTYTPKA 983  
QY 1935 STNTIITTSRHNVDNNTNTTMSRDNMEENLLPSIHGNIYSGEYSYNNVMVNSNDI 1994  
Db 984 NSGQDIT-----YDSNGITTTGIINGADNLTI--DSGYKPKPKSVGVYWEDTNKD 1033  
QY 1995 PINRDNNVSGIDLINDSGKPIDIYDEVYKRENELFGTENTKRTSTONVAKTMSD 2054  
Db 1034 GIQDDN-----EKISGVKYLKDEKNGIISTITTD 1064  
QY 2055 PIHQLELFHKMLDRHRMCEKMKKEDILNKLKEENKENINNSGKTYNSDNKSHNV 2114  
Db 1065 -----ENK--YQFDNLDSGYI 1080  
QY 2115 LNTDVSIQDMNDPKTKIEITMDTODKSTMD-----TILDLKXNDPYRYDYEDD 2168  
Db 1081 -----IHFKEPKGMTQTANSNDDEKADGEDVAVTITLHDHDFSIDNGYFD--DDS 1130  
QY 2169 IYHDVVEKSSMDIYVDHNN 2190  
Db 1131 DSDSDADSDSDSDSDADSDS 1152

RESULT 8  
US-11-044-899-2  
Sequence 2, Application US/11044899  
Publication No. US20050260616A1  
GENERAL INFORMATION:  
APPLICANT: Chen, M.  
APPLICANT: Schwab, M.  
TITLE OF INVENTION: NUCLEOTIDE AND PROTEIN SEQUENCES OF NOGO GENES AND METHODS BASED  
FILE REFERENCE: 10200-017-999  
CURRENT APPLICATION NUMBER: US/11/044,899  
CURRENT FILING DATE: 2005-01-26  
PRIOR APPLICATION NUMBER: 09/830,972  
PRIOR FILING DATE: 2001-09-24  
PRIOR APPLICATION NUMBER: PCT/US99/26160  
PRIOR FILING DATE: 1999-11-05  
PRIOR APPLICATION NUMBER: 60/107,446  
PRIOR FILING DATE: 1998-11-06  
NUMBER OF SEQ ID NOS: 51

SOFTWARE: FastSeq for Windows Version 3.0  
 SEQ ID NO 2  
 LENGTH: 1163  
 TYPE: PRT  
 ORGANISM: Rattus sp.  
 US-11-044-899-2

Query Match 1.4%; Score 170.5; DB 7; Length 1163;  
 Best Local Similarity 16.5%; Pred. No. 0.044;  
 Matches 160; Conservative 110; Mismatches 296; Indels 401; Gaps 33;

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QY. 1619 PKGSGEKQSDCKEPPPLPDEEDONPEENTLE-----PKKFCPP 1657
DB 18 PRPPAPFKYQVTEBEDEDEDEDEDEDEDELELEVLERKPAAGLSAAAVPAAAP 77
QY 1658 -----TTQPEBEKGEFTCG--NKEBKDEKKEBSEEPKESGPAEAPATASEETE 1709
DB 78 LLDSSDSVPPAPRQPLPAPAPAPBERQPSWERSPAAPAPSLPPAAAVLPSTLPEDDEPP 137
QY 1710 TNFPEPPGTG-----PAAPSTPAPP-----TPDTPPLRPOA----- 1742
DB 138 ARPPPPPPAGAPLAPAPAPSTPAPAPKRGSGSVDETFLPALPAASEVPIPSAKINDL 197
QY 1743 -----DEPPDSTLLQTTIPFGVALAGSIAFLFKKKTKASVGNLFQI----- 1785
DB 198 MEQPGNTVSSQGEDPSPVLFTFAASLPSTLSTVSF-----KEHGYLGNLSAVSSSGT 252
QY 1786 -----LQIPK-----SDYDIPFLKSSNRYIPVSDRYKKTYYIMEG 1822
DB 253 IEETLNEASKELPERATNPFVNRDLAEFSLEYSSEMGSPFKGSP-----KGESAILVEN 306
QY 1823 DSD-----EDKXAFMSDTPDVTSS-----ESRY 1845
DB 307 TKEEVIYNSKQKEDLVCSAALHSPOESPVGKEDRVSPKTKMDITNEMQSVAAVREBEY 366
QY 1846 EEL-----DINDIY-----VPGSPKYKTLIEVLLEPS-----GNNTTASG 1880
DB 367 ADFKPFEGAMEVKDTYBESRDVLAARAVESKYVRKCLEDSLEQSLGKDSGRNEDASF 426
QY 1881 KNTP-----SDTRN--DIONDGIPSSKITDNEMQKKEPISN- 1916
DB 427 PSTPEPVDSRAVITCASFTSATESSTANTPPLLEDHTSENKTEBKEKKEKQIITEK 486
QY 1917 -----MLQNPQNDVNDYTSNGSSNTNTITTS 1944
DB 487 TSPKTSNPPLVAVQSEADYVTTDTLSKYTEAAVSNMPEGLTPDLVQECSELNBAETG 546
QY 1945 RHNVNNTNTTTSRDNMEENTL-----LPSIHQGN----- 1974
DB 547 KIAYETKVDLVQTSALQESLYPTAQOLCSPFEAEATPSVLPDIYMEAPLNSLLPSAGA 606
QY 1975 -----LYSGEYSYNNVNVNNSNDIPINRNNV----- 2002
DB 607 SVVQPSVSPLEAPPVSYDSIKLEBENPPPYEEANVVALKALGTGKIGKEPSPNAAOE 666
QY 2003 -----YSGI-----DLINSLSGCKRIDYD 2023
DB 667 TEAPYISIAODLIKETKUSTEPSPPPSNYSEIAKEKESVBEHAELVEDSPESPEDVLS 726
QY 2024 E-----VLKRENEBLFGT-----ENWK 2040
DB 727 DDSIEVQOTQGEAVMLKESLTVESYVAQHEKRLASPOELGKPYLESFQPLHSTK 786
QY 2041 RTSTONVAKTNSDPINQLELFHKMLDRHDMCEKMKNKEDILANKLEWKNENINNSG 2100
DB 787 DAASNDIPLTITKEKISIQMEEFNTAIYSNDLL--SKED--KIKE--SETFSDS 837
QY 2101 KTYNSDNKPSHHVLTVDVSIQIDMDNPKTKNEITNMDQNDKSTMDT-----LDDE 2154
DB 838 PIEIIDEPFTF-----VSAKODSPFLAKETVDLEVS--DKSEIANTQSGADSLPCE 887
QY 2155 KYNDPEYVDFYEDDIY--HDVDVEKSMDDIYVHNNTVSNMNVPTKMIENKIVNKK 2212
  
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DB 888 LPCDLSFNKIYPKQEHVHSDERFENSSVSKASISPSNVSA--LEPQTEMG---SIYKSK 942  
 QY 2213 KEIFEE 2219  
 DB 943 SLTKEAE 949

RESULT 9  
 US-11-044-899-30

Sequence 30, Application US/11044899  
 Publication No. US20050260616A1  
 GENERAL INFORMATION:  
 APPLICANT: Schwab, M.  
 APPLICANT: Chen, M.  
 TITLE OF INVENTION: NUCLEOTIDE AND PROTEIN SEQUENCES OF NOGO GENES AND METHODS BASED  
 TITLE OF INVENTION: THERON  
 FILE REFERENCE: 10200-017-999  
 CURRENT FILING DATE: 2005-01-26  
 PRIOR APPLICATION NUMBER: 09/830,972  
 PRIOR FILING DATE: 2001-09-24  
 PRIOR APPLICATION NUMBER: PCT/US99/26160  
 PRIOR FILING DATE: 1999-11-05  
 PRIOR APPLICATION NUMBER: 60/107,446  
 PRIOR FILING DATE: 1998-11-06  
 NUMBER OF SEQ ID NOS: 51  
 SOFTWARE: FastSeq for Windows Version 3.0  
 SEQ ID NO 30  
 LENGTH: 1163  
 TYPE: PRT  
 ORGANISM: Rattus sp.  
 FEATURE:  
 NAME/KEY: VARIANT  
 LOCATION: (1)...(1163) at all Xaa position  
 OTHER INFORMATION: Xaa = any amino acid  
 US-11-044-899-30

Query Match 1.4%; Score 170.5; DB 7; Length 1163;  
 Best Local Similarity 16.6%; Pred. No. 0.044;  
 Matches 161; Conservative 112; Mismatches 293; Indels 401; Gaps 34;

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QY 1619 PKGSGEKQSDCKEPPPLPDEEDONPEENTLE-----PKKFCPP 1657
DB 18 PRPPAPFKYQVTEBEDEDEDEDEDEDELELEVLERKPAAGLSAAAVPAAAP 77
QY 1658 -----TTQPEBEKGEFTCG--NKEBKDEKKEBSEEPKESGPAEAPATASEETE 1709
DB 78 LLDSSDSVPPAPRQPLPAPAPAPBERQPSWERSPAAPAPSLPPAAAVLPSTLPEDDEPP 137
QY 1710 TNFPEPPGTG-----PAAPSTPAPP-----TPDTPPLRPOA----- 1742
DB 138 ARPPPPPPAGAPLAPAPAPSTPAPAPKRGSGSVDETFLPALPAASEVPIPSAKINDL 197
QY 1743 -----DEPPDSTLLQTTIPFGVALAGSIAFLFKKKTKASVGNLFQI----- 1785
DB 198 MEQPGNTVSSQGEDPSPVLFTFAASLPSTLSTVSF-----KEHGYLGNLSAVSSSGT 252
QY 1786 -----LQIPK-----SDYDIPFLKSSNRYIPVSDRYKKTYYIMEG 1822
DB 253 IEETLNEASKELPERATNPFVNRDLAEFSLEYSSEMGSPFKGSP-----KGESAILVEN 306
QY 1823 DSD-----EDKXAFMSDTPDVTSS-----ESRY 1845
DB 307 TKEEVIYNSKQKEDLVCSAALHSPOESPVGKEDRVSPKTKMDITNEMQSVAAVREBEY 366
QY 1846 EEL-----DINDIY-----VPGSPKYKTLIEVLLEPS-----GNNTTASG 1880
DB 367 ADFKPFEGAMEVKDTYBESRDVLAARAVESKYVRKCLEDSLEQSLGKDSGRNEDASF 426
QY 1881 KNTP-----SDTRN--DIONDGIPSSKITDNEMQKKEPISN- 1900
DB 427 PSTPEPVDSRAVITCASFTSATESSTANTPPLLEDHTSENKTEBKEKKEKQIITEK 486
  
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QY 1901 -----ITDENMNOUKKEFISNM-----LONQPNVDYNTSGNSSTNTTITS 1944  
DB 487 TSPKTSNPLVAVQDSADYTTDTLSKYTEAAVSNMPEGLTPLDVQACSESLNEATGT 546  
QY 1945 RHVNDNTNTTMSRDNMEENTL-----LIPSIHGN----- 1974  
DB 547 KIAYETKVDLVQTSFAIOBSILYPTAQLCPSFEAEATPSVLPDIWEAPLNSLPSAGA 606  
QY 1975 -----LYSGEYSYNVMNVMNMCIPINRNNV----- 2002  
DB 607 SVQPSVSPLEAPPVSTDSITKLEPENPPYEANVVALKALGTGKIGKESPEFMAVQE 666  
QY 2003 -----YSGI-----DLINDLSGKPEIDYD 2023  
DB 667 TEAPYISACDLIKETKLTSTEPSPDFSNVSEIAKFEKSVPEHAALYEDSDSPSEBVLDFS 726  
QY 2024 E-----VLKKNELGCT-----ENTK 2040  
DB 727 DDISPEVQOTOBAAVLMKESLTVESETVAQHKEERLASPOELGKPYLESFQPNLHSTK 786  
QY 2041 RSTONVAKTNSDPIHNOLELPHKMLDRHDMCKMKNKEDILNKLKEWNKENINNSG 2100  
DB 787 DAASNDIPLTKKEKISLOMEEFNTAISNDLL---SKED---KIKS---SETFSDS 837  
QY 2101 KTYNSDNKPSHNHVLNTDVISIQIDMDNPKTNEITNMDTODKSTMDTI-----LDDLE 2154  
DB 838 PIEIIDEPTF-----VSAKODSPRLAKEYTDLEVS--DKSIAMIQSGADSLPCL 887  
QY 2155 KYNDYYIDFYEDDIY--HDVDEKSSMDIYVHNNTVSNMVPFKHLENNIVNKK 2212  
DB 888 LPCDLSFKIYPKDEHVHSDSENRSSVSKASISPSNVA--LEPQTEMG---SIVSK 942  
QY 2213 KEIFREE 2219  
DB 943 SUTKEAE 949

RESULT 10  
US-11-089-551A-30  
; Sequence 30, Application US/11089551A  
; Publication No. US20050266242A1  
; GENERAL INFORMATION:  
; APPLICANT: Lindquist et al.  
; TITLE OF INVENTION: ELECTRICAL CONDUCTORS AND DEVICES FROM PRION-LIKE PROTEINS  
; FILE REFERENCE: 30554/40025A  
; CURRENT APPLICATION NUMBER: US/11/089,551A  
; PRIOR FILING DATE: 2005-03-24  
; PRIOR APPLICATION NUMBER: US 60/559,286  
; NUMBER OF SEQ ID NOS: 65  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 30  
; LENGTH: 964  
; TYPE: PRT  
; ORGANISM: Saccharomyces cerevisiae  
US-11-089-551A-30

Query Match 1.4%; Score 166; DB 7; Length 964;  
Best Local Similarity 19.3%; Pred. No. 0.061; Indels 120; Gaps 16;  
Matches 87; Conservative 69; Mismatches 175;

QY 1780 GNLFOI--LQIPKSDYDIPTLKSNRYIPVSDRYGKTYIYMGSDDEDKAFMSDITD 1837  
DB 605 GILFYIHEAQLDPKD-----SAREYDILKDAEGRSVLLQAKDS-----MAASRT 651  
QY 1838 VTSSESEYEELDINDIYVPGSPRYKTLIEVLIPSGNNTTASGKNTPSDTRNDIONDGP 1897  
DB 652 YMLNLIQIFKLN-----SKTIQTALHSSPSNESAFVLVNNSSALKPHLGDSIQ 700  
QY 1898 -----SSKTDNEMNOLKKEFISNMLOQNPVNPVNTSGNSSTNTTITSRHVNDNT 1952  
DB 701 PVFESSQDTKQSFSLAKSE-----ESTNDYAMANYLVNTPIS-----ENDL 742

QY 1953 NTTMSRDNMEENTLIPSIHGNLYSGEYSYNVMNVMNMCIPINRNNVYSGIDLINDS 2012  
DB 743 NEAQOQOQVSG-----TTMSN-----ERPNNFLSIDIRDN 776  
QY 2013 LSGKPIPIDIVELVKE-----NELPTEKTSITQVNAKTTNSDPIHNOLELPHKML 2067  
DB 777 NGQSNILDAFDVIRNDGDIPTSAFDPSSK-----SNASNSNPDTINN----- 823  
QY 2068 DRHDMCKMKNKEDILNKLKEWNKENINNSGKTYNSDNKPSHNHVLNTDVISIQIDMDN 2127  
DB 824 -NYNNVSGKNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN 870  
QY 2128 PKTYNEITNMDTODKSTMDTIILDDLEKNDPYIYDREDIYHDVDEKSSMDIYD 2187  
DB 871 GNSNNNNNNNNNNNNNNNDFGIKDN-----NSPYEGFPQOI-----PLSQDNINTE 918  
QY 2188 HNNVTSNMDVPTKQHIEMNIVNNKEIFEE 2218  
DB 919 DKEMSPRIETKQEN--MTDSNDILGVFDQ 947

RESULT 11  
US-11-013-759-11  
; Sequence 11, Application US/11013759  
; Publication No. US20050249747A1  
; GENERAL INFORMATION:  
; APPLICANT: Locomore, Sheena M.  
; APPLICANT: Sasaki, Ken  
; APPLICANT: Yang, Yan Ping  
; APPLICANT: Klein, Michel H.  
; TITLE OF INVENTION: RECOMBINANT HIGH MOLECULAR WEIGHT MAJOR OUTER MEMBRANE  
; FILE REFERENCE: 1038-921MIS:jb  
; CURRENT APPLICATION NUMBER: US/11/013,759  
; PRIOR FILING DATE: 2004-12-16  
; PRIOR APPLICATION NUMBER: US/09/361,619  
; PRIOR FILING DATE: 1999-07-27  
; NUMBER OF SEQ ID NOS: 32  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 11  
; LENGTH: 2314  
; TYPE: PRT  
; ORGANISM: Moraxella catarrhalis  
US-11-013-759-11

Query Match 1.4%; Score 164.5; DB 7; Length 2314;  
Best Local Similarity 17.9%; Pred. No. 0.22;  
Matches 428; Conservative 249; Mismatches 778; Indels 931; Gaps 109;

QY 17 HVLDFGQKVHDEVHGEAKNYVSEIKGSLASILGETAFTVYKSNQTESKTTLEIANSK 76  
DB 215 HFANAFTGR-----STAEQVSLA--VGLTA-----KAKGYTIALGSAQA 253  
QY 77 RNPCKGQKQND--VDRSVKBOAGYDNKKKKCSGMCAPFRRLHLNKNPFMNSNDS 134  
DB 254 AINYGALALGADTRD-LDYGIALGYGQIL-----NNNNNNN 290  
QY 135 SKAKHDLAELVCMAYEGESIKTHYPKYDSKPYSPDEPMCTMLARSPADIGDIIRGDL 194  
DB 231 NKA-----VYPEGNSNKS-----SKATONGL-----FSISSTIKRKII 326  
QY 195 YLGKKKKQNGKETERELKQKLEIFPKIHDLNKAQKRYNGDEDPNFKLRBEDWMT 254  
DB 327 NVG-----AGYEDTDVANVAQ--LKAV-----ENLAKR--QITFKGDDMGTVKKK----L 369  
QY 225 ANRETVWAMTCSKEL--DNSSYFRATCNDTG-----GQPSQTHNKRCDXK----G 301  
DB 370 GETLLIKGEGTQADKLTNNNIGVVTDNNTGLKYGLAONLSGLETSTKNTLTASAKTVYG 429  
QY 302 ANAGKPKAGDGVTVTPYFDVPOYLRFEFEMADFCRKKKKKLENEKQCRGKQKSD 361  
DB 430 GGNNTAELOSGGLTPTF-----TASIDTKTYYG---IDG 461



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QY 362 YRYSRNGYDEQOTISRKGVNMG---KGCTDCEFFAGSYEN--WIDNOKOPDKOKY 415
DB 462 LKFDNSMTALEDT--TRITKOKIGSNKAGTVD-----ENKRYLXK---DKLKV 507
QY 416 TKEISDGGRRKRAVGGTTKYEYKESFYEBKLANDGYTDAFLGLANNEK--ACDQITD- 473
DB 508 NSTLNNGLJTVNNTIGGSNK-----QIQVAGAGIKFADVNVNVAANKGTTIRITEE 559
QY 474 -----GGKI-----NFKEVNSGGVGGSGSGTSG-----ASGTNDENKGTYYR 512
DB 560 EIGFADADGKVKDPSYLDKKOLQVGVKITKOSGINAGDQKISNVKCATIDTDTAVTYKQ 619
QY 513 SEYCCPDCGVQHKGNQMKERTKVKKRWMSKLYK-----548
DB 620 LKQVQDADGALQSS-----TRDEKGEFTISNLNSNGTPTPTFTIIFAGENGISISND 675
QY 549 -----PINGMV--LILKSLKVVKDMILK-----N 573
DB 676 IAKGVKVGIDPINALTPKLTGSDKDGKTQVLIEQVASGNDTKNIIIRGLSPTLSITN 735
QY 574 WKEFLTG-----NSSDGSVGSVTTG-----ASGNSSE 602
DB 736 AGGVRTTQGNNTISDEDKSKAASIGDILMTGFNLKNNNSVGFVSTYNTVDFIDGNAT 795
QY 603 KEELYDEWKCYKHNVOKVNVQGEVEBDDDELKAGGLCILPNPKNKEVSEAKSQNNHA 662
DB 796 AKVTYDE-----TNGTSKYTVDVNVDEKTIELTGNG-----KTNK----- 831
QY 663 DIQKTFHDFYVYVAHMLKDSIHMTKRLKSCISIDGKTMKCRNGKNKKDCFEKVKQKE 722
DB 832 -----IGVKTITLTNNAGKATNFSTDN-----DALVNAKD 864
QY 723 ---TEWKP IKDHFKTQOEGIPBEGYFTTLELILKQLKEDTEBNTENSIDABEAEELKIQ 780
DB 865 IAEINLTAKEIHITTKG-----TADYALQTFYKKGATDITDTITVKGCTGNGKTV 916
QY 781 KILKLENNENLAVNVAAGTEOKTMDKLNHELNDATKCDPLPREDKSRGSADSPD- 839
DB 917 NTLKLGKNGTLVA-----TNKDGTVTFGINTOSGLK-----AGDSTILNKDG 959
QY 840 IIFIPPEEKEDENEDDEDEVRDEETAKETTESATDTYTSILDVCPVGRV-----L 893
DB 960 LSIKNPANEQIQVAGADGVKFAKVDKNSGTIGDTSRITKQIQFTGANGSLDPTTKPHL 1019
QY 894 TKDNESLQDASGLKVG-----GNNSRLGRMCMV--PSGEPTSSDKKGAICVPPRRR 944
DB 1020 TKD-----KLKGVBEVITNTGINA--GGKKITNIOGDTTQNS--NDAVTG----- 1061
QY 945 LYIKKIIVMATKTESPOASGSEASSTGTPPDSKALKAFAVESAIETPFMLHRYKE 1004
DB 1062 ---GKVVYLKTELEBSKINSAAKTAQNS-----LHER-- 1089
QY 1005 EKKAVAGEAGHGLPRVEGSEPEYDEBKLKEGKIPDGFRLQMFYLLGDYRDLIFSGSND 1064
DB 1090 ---SVADQGNHFTV-----SNPYSSYDTSKTSV-----ITFAGENG 1124
QY 1065 -TTSVSKQTPSSSNDNLKNIYLLASGSTBOERERKNKTKYKINFKKSTERSAPLVSHR 1123
DB 1125 ITTKVKNKVNVVVGIDOTKGL-----TTPPL----- 1149
QY 1124 QTMENNENKTYIWHGVNVALTSKDKIAKGVKKPKQKINPENLMDANKKPKPOQYQYTNV 1183
DB 1150 -TVGNNNNGKI-----VIDSKD----- 1165
QY 1184 KLDENSGTSPTTQOASSDNTPTTLTFHVKAPTYFRWFEWGESFCHERKKRLKQIKVD 1243
DB 1166 ---GQNTITIGLSWTLANTNDAGHALSGIANDT-----DKTRAASI--- 1205
QY 1244 CKVENGDV---GRCSGDEACDSISTHDYSTVPSFNCPCGCKGCSYRKMIERKKIEFH 1299
DB 1206 ---GDVLNAGFNLONGEAVDFVSTYD----- 1229
QY 1300 KQSNAYGQOQKTDATBNNGNTFDEKFCITLETWPAKFLERLKNKPCCKTNKEYGDDIDF 1359

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DB 1230 -----TVDFIDGNAT-----AKVYDDTS-----KTSKVV-----YDV 1258
QY 1360 EKDSKTPQHTREYCGPCRFKTNQNGNGVSGNLN-----COGSKSIDAKETIAKMRSS 1413
DB 1259 NVDNKTELEVIS-----DKKIGVKTITLTYSANGNATFSPAADBDALVKSADIA----- 1307
QY 1414 TTDVVMRVSNDNTYTFBEGDILKDACOHANIFKGIKIDVWKGVYCGVDICEQTNINERTD 1473
DB 1308 -----THLMTIAGD-----IQTKAGSQAASSASY---VDADGNKVIYDSYD 1346
QY 1474 GKEYIQIRALFKRWENFLEDYNNKINDKISHCIKKGESKCIINGCESKCLERKIEKKI 1533
DB 1347 KK-----YQVNDK-----GQYDKKKEVAK---DKLV 1370
QY 1534 AEMENIKRFRNDQYENKQDP-----YVKSILBELPKIAVNDQDNVILKCFENSKG 1588
DB 1371 AQADQ-----PDGTLAQNVKSVI----- 1389
QY 1589 CTLSINTQNK--NDALDCLKLGVAKKCPGKPSGKQSDCKEPPPLPDEBDQNPBE 1646
DB 1390 -----NEQVNDK-----NKGGINEDNAFIKGLNAKDTTKRAAYVGBLNAVA 1436
QY 1647 NTLBPPEPCPTTQPPBE-----KQGETCGNKEKKDKESSEEPKESGPAEEP 1699
DB 1437 QT--PLTFAGDGTAKKLGSETLTIKGQDTNKK-----LTDNNIGVAVAGTD 1481
QY 1700 APTABSETEFNFBEPFGTGAAPSTPAFTPTPPLRPOADEFPSTI-----LQ 1752
DB 1482 GFYVLAADLTNLSVNAAG-----TRIDEKGISFVANGAQAKAN 1521
QY 1753 TTFPGVALAGSIAFLPKKKTASV-----NLPOILOPKSDYDIPTLKSSNR 1803
DB 1522 TPVLSANGLDAG-----KRIISITGAVDNDVAVPKPNREKAVKVNANLQNSNGA 1573
QY 1804 YIPYSDRYKGTIYMEGDSDEDEKTAFAMSDTDTVTSESEYEELDINDIYV--PGSP-- 1859
DB 1574 SLFPVYVDANGKP--INGTDGKPKQA-----IKGADGVYHANANGVFPVDKQKPYT 1623
QY 1860 ---KKTILI-----EVLBESGNNTTASGKNTFS-----DT-----RNDIQNGI 1896
DB 1624 DADKLANLAHAKPLDAGHQVVASIGNSDAITLTINISLTLPQIDTPYTGANNAQQAQSL 1683
QY 1897 PSKKTIDENWQLKEEFSNM---LONQPN--DVNDVTSQNSNTNTITTSRRANVN- 1950
DB 1664 PSLSAQAQS--NAAASYKVDLNVGFNLQTNHNOVDYKAYADTVNFPNGTADITSVASADGT 1742
QY 1951 ---NTNTMSRDMMEENILLPISIHGNYLSEGEYSYVNVNWNVNSMNDIPINRDNVYSGI 2006
DB 1743 MSNTVNTALATDODDGNVLKA--KDGKFTYADDLMPV---GSLKAGKASDADKTPPTGL 1797
QY 2007 DLINDISLGGKPID-----IYDEVLKRXENELFGENTKRTSTONVAKTNSDPFHQL 2060
DB 1798 SLVNPNAKSGSTGDAVALNLSKAVFKSKD---GTTT-----TVSSDISIQ- 1842
QY 2061 ELFHKMDRHRDMKEMKKNKEDILNKLKEBNNKENINNSGKTVNSDNKPSHNHVLNTQVS 2120
DB 1843 -----GDNSSI-----TUSKQGLNAGGVVISVNGGTXD----- 1872
QY 2121 IQIDMDNPKTKNEITNM-----DTNQDKSTMDPTIILDLERKYND 2159
DB 1873 ---TDAANVQALNBYRNLGLGNAGNDNADNGQVN--IADIKK--DP 1912

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RESULT 12
US-11-089-551A-35
; Sequence 35, Application US/11089551A
; Publication No. US20050266242A1
; GENERAL INFORMATION:
; APPLICANT: Lindquist et al.
; TITLE OF INVENTION: ELECTRICAL CONDUCTORS AND DEVICES FROM PRION-LIKE PROTEINS
; FILE REFERENCE: 30554/40025A
; CURRENT APPLICATION NUMBER: US/11/089, 551A

```

; CURRENT FILING DATE: 2005-03-24  
 ; PRIOR APPLICATION NUMBER: US 60/559,286  
 ; PRIOR FILING DATE: 2004-03-31  
 ; NUMBER OF SEQ ID NOS: 65  
 ; SOFTWARE: Patent Ver. 2.0  
 ; SEQ ID NO 35  
 ; LENGTH: 454  
 ; TYPE: PRT  
 ; ORGANISM: Saccharomyces cerevisiae  
 US-11-089-551A-35

Query Match 1.4%; Score 164; DB 7; Length 454;  
 Best Local Similarity 21.2%; Pred. No. 0.03;  
 Matches 96; Conservative 76; Mismatches 163; Indels 118; Gaps 23;

QY 1773 KKTAKSVGNLFOILQIPKSDYDIPFLKSNRIPIVSDRYKAKTYI-----Y 1819  
 DB 72 KKSXKSNASM-----NDKD-KCRTTKDM-----TRYDSKSVYTCDDHKASHSMKY 117  
 QY 1820 MEGDDEDEKAFMSDTTDTVTSSESESEBELDIN-----DIYVGPSPKYLLEVLPEPGN 1874  
 DB 118 KKRSDVDKH--VMKDDSVKASKNMSHNTSTYTKAKMDVYTKANANKKKSDTSTWKKXN 175  
 QY 1875 NTTASGKTPSPDTR--NDIQNDGIPSSKITDNEWNLKKEFLISNMLQNPDPNDVDTSG 1932  
 DB 176 KSHVSYNDKSKTKMYNDSDDD--DDNNVNNNDN-----NNNKIDNNNDNNNTSN 225  
 QY 1933 NSSTNTITTTTNRHVNNDNTN--TTMS--RDNMEENLLPSIDGNLYSGEYSYNNMV 1988  
 DB 226 NNNNNNNRKKNNRNRDMTKCKCTDMNDGRDNNNNKDM--AANDKKNNV-----NVKR 277  
 QY 1989 NSMNDPIRDNVNVSGIDLINDSLSGKPI--DIYDEVLRKENELFGENTKRTSTONV 2047  
 DB 278 NFKSS--CRDG--YSANNAVANSTASNKGVANDNDYKNTKTDTNKKKDSNDVTKK 333  
 QY 2048 AKTTNDPIHNOLELPHKWLDRHRDMCEKXNKEDILNKLKEENKKNINNSGKTYNSDN 2107  
 DB 334 RRTSGNGSRNVVS-----VSRSKATYTKTKKK-----KRDKDKKN-----KKADN 377  
 QY 2108 KSHHNVLTVDVSIQI--DMDNKTKEITNMDTNOD--KSTMDTILDLDEKXNDYDYDF 2164  
 DB 378 KK-----NNAVTVSYYDSNKYKSNKRSRKNKSVNVNSGDSRVKSCKYAD----- 425  
 QY 2165 YEDDIYHDVDEKSGMDDIYVDHNNVTSNMD 2197  
 DB 426 -----NNTKSNDA 434

RESULT 13  
 US-10-485-517-129  
 ; Sequence 129, Application US/10485517  
 ; Publication No. US200502629A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: University of Sheffield  
 ; APPLICANT: Biosynex Incorporated  
 ; APPLICANT: Foster, Simon  
 ; APPLICANT: Mond, James  
 ; TITLE OF INVENTION: Antigenic Polypeptides  
 ; FILE REFERENCE: P100629W0  
 ; CURRENT APPLICATION NUMBER: US/10/485,517  
 ; CURRENT FILING DATE: 2004-02-02  
 ; PRIOR APPLICATION NUMBER: GB 0118825.9  
 ; PRIOR FILING DATE: 2001-08-02  
 ; PRIOR APPLICATION NUMBER: GB 0200349.9  
 ; PRIOR FILING DATE: 2002-01-09  
 ; NUMBER OF SEQ ID NOS: 424  
 ; SOFTWARE: Patent version 3.1  
 ; SEQ ID NO 129  
 ; LENGTH: 895  
 ; TYPE: PRT  
 ; ORGANISM: Staphylococcus aureus  
 US-10-485-517-129

Query Match 1.3%; Score 163; DB 6; Length 895;  
 Best Local Similarity 19.6%; Pred. No. 0.08;  
 Matches 141; Conservative 101; Mismatches 262; Indels 216; Gaps 37;

QY 1552 QPDVNVASIIIBELIPKIAVNDONVTKLCVFENSKGCTILSN--TONKENDAIDCMKK 1610  
 DB 221 KPIYNDPSLVASDNTDAVNTNDSS-----SVASNOTNTNTSNTSTI--- 264  
 QY 1611 LGVAKXKCPGKPSGKSDCKEPPPLPDEBDONPEENTLBPCKPPTTOPPEKGETC 1670  
 DB 265 -----NNANQP-----QATTMSQPAQPKSTNADQ-----ASSQPAHETN-- 303  
 QY 1671 GNKEEKDCKEKESE-----EPKESGPAABEAPPAESFETETNPPPEPGCPAAPPS 1725  
 DB 304 GNTNDKTNESNQSVDVQYPPADESLDALKNPA--TIDKHTADNW----- 349  
 QY 1726 TPAPPTDTPPLAPQADE-----PPDSTLTOTTFPGVALAGSIAFLPKKTKYASV 1779  
 DB 350 -----RPIDPQMKDNGERQFYHASYVEPATVAF--TKTGPIIELGLK--TAST 395  
 QY 1780 GNLFOILQIPKSDYDIPFLKSNRIPIVSDRYKAKTYI-----YME 1821  
 DB 396 WKTEFYVE--GDKKLPV-----ELVSDSD--KDYAVIRPVGNGTREVIVSIEYGE 445  
 QY 1822 GDSDEDKAFMSDTTDTVTSSESEY--BELDINDIYVGPSPKYL-----IEVLPEPS 1872  
 DB 446 NIHEDYDTLMVFAQPIITNPDYDEETVNLQGLLAP--YHKAATLREQVYLEKLEKL 504  
 QY 1873 GNNTTASGKTPSPDTR--NDIQNDGIPSSKITDNEWNLKKEFLISNMLQNPDPNDVDTSG 1921  
 DB 505 PEKYKAEYKKLDQTRVELADQVKAATFEFNVTPITDQITDQ---EALFV--VPESE 558  
 QY 1922 PND-----VPNDYSGNSSTNTNTTTSRN-----VDNNTTMSRD--NMEENT 1965  
 DB 559 ENSGSVWDGFYBHFYATLTAQGYVVMKTDSDGYMOLIVGKRVYTVSDPKNNSRTL 618  
 QY 1966 LIPSIHGNLYS-----GEBYSYNNMVN--SANDIPINRD-----WY9G-- 2005  
 DB 619 IFPYIPDKAVYNAIVKVVANIGEGQYHVIINODITKDDTSQNTSSEPLNVQTOE 678  
 QY 2006 -----IDLINSLSGKPIDIYD--EVLKRKENELFGENTKRTSTONVAKTNSDPIN 2058  
 DB 679 GKVADTDVAENSSATYTNPKASDQADVLEPESDVKADN-----NIDQVGH-- 727  
 QY 2059 QLELPHKWLDRHRDMC-----EKWKNKE--DILNKLKEENKKNINNSGKTYNSDNPS 2110  
 DB 728 -----VDHLSDMSDNHFDKYDLKEMDQIAADTDNRVDKADNSVGKSNVDTDXD 779  
 QY 2111 HNHVLTVDVSIQI--DMDN-----PTKKEITNMDTNODKSTMDTILDLDEKXND 2158  
 DB 780 SNK--NKDKVQLNHIADKNNHTGKAALDVKQVYNTDVKVTKTEHLPSDIHKTVD 837

RESULT 14  
 US-10-995-561-773  
 ; Sequence 773, Application US/10995561  
 ; Publication No. US20050272054A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: CARGILL, Michele et al.  
 ; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH  
 ; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF  
 ; FILE REFERENCE: CLO01559  
 ; CURRENT APPLICATION NUMBER: US/10/995,561  
 ; CURRENT FILING DATE: 2004-11-24  
 ; NUMBER OF SEQ ID NOS: 85702  
 ; SOFTWARE: FaalSeq for Windows Version 4.0  
 ; SEQ ID NO 773  
 ; LENGTH: 3803  
 ; TYPE: PRT  
 ; ORGANISM: Homo sapiens  
 US-10-995-561-773

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Query Match      1.3%; Score 162.5; DB 6; Length 3803;
Best Local Similarity 17.2%; Pred. No. 0.53;
Matches 328; Conservative 261; Mismatches 698; Indels 623; Gaps 89;

QY      8 GGTODEADAKHVIDEFGQKVHDEHGEAKYSELKGSLSLASILBETAFTVKSMQTESK- 66
DB      1844 GGSSEPTLPILLKROGSFSED-----VISHKGDLRFVTISGQKVLDMENSKEGKE 1894
QY      67 -----YTELLEANSKRNPKCKXK-----GNVDRFSYVE 96
DB      1895 PSEIGNLVKDKLKDATERYTA-----HSKCTRLGSHLMLLGOYHOFQNSADSLQAMM 1948
QY      97 QAGYDKMKKCSNGMTCAFRRLHLCKNKPNNMNSDSKAGDILAEVCMAA-----KY 151
DB      1949 QACEANVELSLDPTASDP-----GYLQEBLATTQQLBELAHOVPEVLEQVARDIMEI 2004
QY      152 EGESIKTHVPKYDSKYPGSDPFMTMLARSPADIGDIIRGRDYLGNKKKKONGKETERE 211
DB      2005 EGEPAPDH--RHVQETTSILSHFQSLSYSLAERSSIL-----OKALAQSOQVOE 2052
QY      212 KLEQLKEIFKKIHNLKDKKQKRYNG--DEDPRFYTLRED-----WMTANETV-- 260
DB      2053 SLESLLQST-GEVEONLREKQVSSLSGVIQELATNMMLKODIARQKSSLEATEBMTVR 2111
QY      261 -----WGAMTCSKELDSSYFRATC-----NDTGGQSPSQTH 291
DB      2112 FMETADSTTAVALQGLAEVSRFEOLCLQOQEKSSLLKLLPQAMEPHLSGKLQQPM 2171
QY      292 NKCRCDKDKGANAGPKAGDGDVTIVPTVFDYVPOYLWFEF----- 333
DB      2172 NKSR-----MLASGNRP--DQDIT--HFQOIQELINLEMEDQENLDTLEHLVETLSGC 2221
QY      334 -MAEPFCRKKKKLENLKQCGKXKSDRYRCSANGIDCEQTIIRKGVNRKSGCTDCE 392
DB      2222 GPALDLC-QHODRVONLRKDPTELQKTVKER--EKDASSCOQLBEFRLL----- 2268
QY      393 FACGSEYMIND-----QRKOPDKOKYTKTEISDGGGRKRAVAG--TTKYEGY 439
DB      2269 --VRFQKMLKETBSIPTETSMASKLEKQIIBHKLSDLMASKGLTVEINCKGISTL 2326
QY      440 EKSFYEKLNKNDYG-----TVDAFLGLANNEKACKDIT--DQKINFEVNSGGGV 488
DB      2327 ENLIMEITAPBQKGTGILSPVSGSVSGVNGYTHCKDLTEIQCMSPVNLKYKELG--- 2383
QY      489 VGGSGGTSIGASGTNDENKGTFRSEYCOPCPCDQYQHKGNQMERKTKVKKM--RMSGL 546
DB      2384 -----GVLH-----BROESLQALINRMEEV 2403
QY      547 YKPIKGNVLLKSLKVVKNMMILK-----KMKKEFC--LTQNS-----SDG 586
DB      2404 HKEANSVLQWLESKEEVLKSMAMSSPTTETVKAQAESNKAFLEBLEQNSFKIQKVEA 2463
QY      587 SVGSVVT--TGASGNSSEKELYDEWKCYKHNQVQKTNVOGEVEEDDELK----- 635
DB      2464 LAGLLVTPNQSGBAENMKKIOBELNSRME--RATV--TVARQQLBESASHLACQQAAS 2520
QY      636 -----GAGGLCILPN--PKKNKEYS-----EAKSQNH----- 661
DB      2521 QLRPWLMEKELMMGYGLPSIDPNNMLNQKQOVQFWLKEFEARROHQEQLNEAAQILNG 2580
QY      662 -----ADIOKTHDFYVVAHMLKDSIMHRTKRLKSCSDGTMKCRNGKNKCCDC 713
DB      2581 PGDVLSTISQVKEIQSINQKWE--LTDKLSRSSQIDQAI-----VKSTQ 2625
QY      714 FEKWKQKETEWEKPIKDHFKTOEGI--PEGYFTTLELILKQLKEDTEENTNSLDA 770
DB      2626 YGELLQJLSEKVRAGQRLSVQSAISTQBEA-----VKQLESTSEIRSDJL 2671
QY      771 EBAE-ELKRLQKILKLENNMLAVNAGTQKTLMDKLNLEHMLDATKCKDPLB-EK 828
DB      2672 EQLDHEVKAQTLG-----DELSTV-----IEQYLKDBLKRRLTVALPLQLGELJL 2718
QY      829 SNGR-----SADPSPDIFLPRBEKEDDENEDDEBVR--DDEETAKETTESGA 876

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DB      2719 AADRINRLQALASTQOFQWF-----DELRTVLDDKQSQQAQN----- 2757
QY      877 TDTTSLDVCPVGV-----LTKNBSLDQACSLKYGNNSRGLMRCVTPGEPJTSSD 931
DB      2758 -----CPTSALERLQOLONEEFQKSLNHSG-----SEYVLAEGESLLIS- 2801
QY      922 KNGAICVPP-RRRLYIKIYDMATKTESPQASGSEASTSGSTTPPDSKEALLKAFVES 990
DB      2802 -----VPPGEKRTLQQLQVBLKNHMBELSKTRDROSR-----LKDMQRLAQKQY 2847
QY      991 AAIEFFLMHRYKEBKKAVAQEGAGHGLPVEEGSPEDP--EDKLKRGKIPDGFL-- 1044
DB      2848 WHVEDLVPM---IEDCKA-----KMSKELRVTLDPVQLJESSLLRSKAMLENEVERK 2893
QY      1045 KOMFTYLDYNDILPFGSNDTTSVSKOTPPSSNDLKNL-----VLAASGTBEREKMKY 1101
DB      2894 RSLLEILNSAADILINSSEADEGIRDEKAGINQMDAVTEBLQAKTOSLEBMTQRLREF 2953
QY      1102 KE-LKNFRKSTERSAPMLVSHPTWMENNGKYIWHGVCA-----LTSKDIKAGYK 1154
DB      2954 QESFNIRK-KVEGA-----KHQLEIFDALG-----SQACSKNLEKLRAQOEVLOALEP 3002
QY      1155 KPQKLEN-PENLWDEAN-----KKPKPQOYTNVYKLDENSGTSPRTTQOASSDN 1204
DB      3003 QVDYLRNFTQGLVEDAPDGDASQLLHQAEVAQGEFLVQRVNSGC-----VMMEN 3054
QY      1205 TPTTLTHVKKPTVFRWFEENGESECRERKRLKQIKYDKAYEN-GDVGRGSG----- 1256
DB      3055 K-----LEGIGQFHCVRREMFSQLADIDDELIDGALGRDLSLQSOIE 3098
QY      1257 -----DGEACDSISTHDYSTVPSFNCRG-----CGKHCSSRYKWIERRK 1295
DB      3099 DYRLFLKINHVLKLDIEASEBCHMLEBEGTLDLGLKRELEALNKQCG--KTERK 3155
QY      1296 IEFHKNASVYQOKTDAIRNNGNTEPDKFCCTLFTWPAKFLERLKNKGPCKTNRKYGCD 1355
DB      3156 AR-----QEOLELTLGRVEDFYRL-KGLNDATTAAEBEAL-----QMVVGT 3197
QY      1356 DIDFEK---DSKTPQHTYEGCPCKPKFTNCONG-----NGVSGLNGCDDGX 1400
DB      3198 EVELINQOLADFKMFO-KEOVDP-L-QMKLQOVNNGIGGLIOSAGKDCVOGLEN----- 3249
QY      1401 SIDAKEI-AKRSSTVDVWMEVSNDVNTFPESDDLKDCQAHNIPKGIKROY--WKCGV 1457
DB      3250 --DMEINARMMTKKVAQRIA-----QLOEALLHCKGFQDALBPLLSMLAD-- 3295
QY      1458 CGVDICEQTNINERTDGKEYIQRALF--KRWENFLBEDYNNKINDKISHCIKKGSGSKCI 1515
DB      3296 -----TEBLIANQKPSAEYKVVAKQIOBQKTLQRLDLDRKATVWL-----QABGGRIA 3345
QY      1516 NGCEKNSCLEKWIJEKTAEMENIKGRFND-----QYENKQDPY 1555
DB      3346 QSAELADR-----EKIQGLESLSESRTLELISKAABROKOLELTVLAKOHEHTAEPIS 3399
QY      1556 NVKSLLEELIKIAVNDQDNVYKLCVPENSGCTLLINTONKENDAID 1605
DB      3400 DFLSVTEKKLANSEPVGTQAKIQOQITRHKA-----LEBDIENHATD 3442

RESULT 15
US-10-995-561-771
; Sequence 771, Application US/10995561
; Publication No. US20050272054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; TITLE OF INVENTION: DETECTION AND USES THEREOF
; FILE REFERENCE: CLO01559
; CURRENT APPLICATION NUMBER: US/10/995,561
; CURRENT FILING DATE: 2004-11-24
; NUMBER OF SEQ ID NOS: 85702

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SOFTWARE: FastSeq for Windows Version 4.0  
 SEQ ID NO 771  
 LENGTH: 3960  
 TYPE: PRF  
 ORGANISM: Homo sapiens  
 US-10-995-561-771

Query Match 1.3%; Score 162.5; DB 6; Length 3960;  
 Best Local Similarity 17.2%; Pred. No. 0.56;  
 Matches 328; Conservative 261; Mismatches 698; Indels 623; Gaps 89;

8 GGTODADAKHYLDFEQGVHDEHGEAKNYVSELKGSLSLSLIGETAFYVKSQOTSEK-66  
 1844 GGSSEPTLPILKQGSFSED-----VISHSGDLRFYVIGQKXLDIMENSFEKEKE-1894  
 67 -----YTELEANSKRNPKCKDKG-----GNDVRFVSKE-96  
 1895 PSEIGNLVKDKLKDATERYAL-----HSKCTRIGSHLMLLQOYHOFQNSADSLQAM-1948  
 97 QAGYDNKMKCSNGMTCAPFRRLHLCNKPFPNNSNDSSAKHDLLAEVCAA-----KY-151  
 1949 QACENAVKELSDPTVADP-----GYLQGLATTTQLOELABHQVPVEKLOKVARDIMEI-2004  
 152 EGESIKTHYPYDSKYPSDPFPMCTMLARSPADIGDITRGDLYLGKKKKQNGKETERE-211  
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 212 KLEOKLKIFKKIHNLKDXEAKRYNG--DEDPNFYKLRD-----WMTANRETV--260  
 2053 SLESLSLSI--GEVEONLEGVKQVSSLSGVIQBALATMKLKDILAROKSSLEATREMYTR-2111  
 261 -----WGAMTCSKELDNSYFRATC-----NDTQGPSQTH-291  
 2112 FMETADSTTAIVLQKLAEVSQRFQCLQOQEKESLKLPLQAMFEPHLSGKLQCFME-2171  
 292 NKCRCDKQKGNANAGKPKAGDGVTVPTFYFVPOYLAMFEE-----333  
 2172 NKSR-----MLASGNQF--DDIT--HFQOIQELNLEMDQENLDTLHLYTELSSC-2221  
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 2222 GFALDLC--QHDQVONLRKDLFTELQTYKER--EKDASSCOBOLDFPKL-----2268  
 393 FACGSYENMIDN-----QRKQFDKQKYTEISDGGGKKRAVG9-TTKYEGY-439  
 2269 --VRFQMKLKEBESIPPTETSMASAKLEKQIEHLKSLDDMAKGLVIEINCKGSL-2326  
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 2337 ENLIMEITAPDSQGTGSLPSVGSSVGVNGYHTCKDLTEIQCDMSVNLKYEKLG--2383  
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 547 YKPIKGKWLILSLKVVNDMMILK-----KNWKEFC--LTQNS-----SDG-586  
 2404 HKEANSVQLWLESKEBEVLKSMQANSSPTTETVYKQASBNKAFLLBELQNSKIKQVXA-2463  
 587 SVGSVVT-----TGASGNSKEKELYDEWKCYGHNEVQKYNVQGEVEEDDELK-----635  
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 1155 KPQKLEN-PENLIMBEAN-----KKPKRPOYQYTNVTKLDENSGTSPRTTQOASGDN-1204  
 3003 QVDYLRNFTQGLVEDADPDGSDASQLLQAEVAQOEFLEVKQVNSG--VMKEN-3054  
 1205 TPTTLTHPVAKPTFRFPEWGESFCERKRYLKOIKVDCYEN--GDVGRCSG-----1256  
 3055 K-----LEGIGQFHCVRHEMFSQLADLDDLDGMAIGRTDLSQ91E-3098  
 1257 -----DGEACDSISTHDYSTVSPNCPG-----CGKHCSSYRKWKIERKK-1295  
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 3156 AR-----QOELBELTIGVEDFYRKL-KGLNDATTAAEBEAL--OMVVG-3197  
 1356 DIDFEK-----DSKTFQHTCYGCPCKFKTNCONG-----NCGVSGILANGCDGDK-1400  
 3198 EVELIINOGLADPKMFQ-KEQYDPL-QMGLQOVNGLGGLISAGKDCDVOGLBH-----3249  
 1401 SIDAKEI-AKMRSSITDVVMEVSDNDTTFEGDDLKQACOHANIPKGIKQV--WKSGYV-1457  
 3250 --DMEIINARWNTLNKKVAQRIIA-----QLOEALHLGCKRFQDALLEPLLSWLAD--3295  
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 1516 NGCEKNSKCLKMEIEKIAEMENIKGRFND-----QYENKQDPDY-1555  
 3346 QSAELADR-----EKITGQLESLSRKTTELLSKRAAQKQLEDLVLAKQPHETAEPLIS-3399  
 1556 NVKSLIELEILPKIAVNDQDNVYIKLVENSNGKCTLISNTONKENDAIID-1605  
 3400 DFLSVTEKKLANSEPVGTQAKIQOQIRHKA-----LEBDINHAHID-3442

Search completed: December 29, 2005, 23:40:20  
 Job time : 32.2054 secs

GenCore version 5.1.6  
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## OM protein - protein search, using sw model

Run on: December 29, 2005, 23:10:51 ; Search time 9.4698 Seconds  
(without alignment)  
3623.140 Million cell updates/sec

Title: US-09-508-967-1\_COPY\_1\_415  
Perfect score: 2276  
Sequence: 1 MATSGSGSGGQDEDAKHYLD.....GSYENWIDNQKQKQKQK 415

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued Patents AA: \*  
1: /cgn2\_6/ptodata/1/1aa/5\_COMB.pep: \*  
2: /cgn2\_6/ptodata/1/1aa/6\_COMB.pep: \*  
3: /cgn2\_6/ptodata/1/1aa/H\_COMB.pep: \*  
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5: /cgn2\_6/ptodata/1/1aa/RE\_COMB.pep: \*  
6: /cgn2\_6/ptodata/1/1aa/Backfile1.pep: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1010	44.4	2182	1	US-08-487-826B-16 Sequence 16, Appl
2	956	42.0	2710	1	US-08-568-459A-12 Sequence 12, Appl
3	956	42.0	2710	1	US-08-487-826B-12 Sequence 12, Appl
4	956	42.0	2710	2	US-09-210-288-12 Sequence 12, Appl
5	956	42.0	2710	2	US-10-153-273-12 Sequence 12, Appl
6	956	42.0	3060	1	US-08-487-826B-14 Sequence 14, Appl
7	845	37.1	700	1	US-08-568-459A-10 Sequence 10, Appl
8	845	37.1	700	1	US-08-487-826B-10 Sequence 10, Appl
9	845	37.1	700	2	US-09-210-288-10 Sequence 10, Appl
10	845	37.1	700	2	US-10-153-273-10 Sequence 10, Appl
11	690	30.3	3542	2	US-10-087-013-2 Sequence 2, Appl
12	379.5	16.7	362	1	US-08-568-459A-18 Sequence 18, Appl
13	379.5	16.7	362	1	US-08-487-826B-18 Sequence 18, Appl
14	379.5	16.7	362	2	US-09-210-288-18 Sequence 18, Appl
15	379.5	16.7	362	2	US-10-153-273-18 Sequence 18, Appl
16	360.5	15.8	411	1	US-08-568-459A-19 Sequence 19, Appl
17	360.5	15.8	411	1	US-08-487-826B-31 Sequence 31, Appl
18	360.5	15.8	411	1	US-09-210-288-19 Sequence 19, Appl
19	360.5	15.8	411	2	US-10-153-273-19 Sequence 19, Appl
20	304	13.4	1435	1	US-08-568-459A-4 Sequence 4, Appl
21	304	13.4	1435	1	US-08-487-826B-4 Sequence 4, Appl
22	304	13.4	1435	2	US-09-210-288-4 Sequence 4, Appl
23	304	13.4	1435	2	US-10-153-273-4 Sequence 4, Appl
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26	285.5	12.5	749	2	US-09-210-288-6 Sequence 6, Appl
27	285.5	12.5	749	2	US-10-153-273-6 Sequence 6, Appl

28	241	10.6	921	1	US-08-568-459A-8 Sequence 8, Appl
29	241	10.6	921	1	US-08-487-826B-8 Sequence 8, Appl
30	241	10.6	921	2	US-09-210-288-8 Sequence 8, Appl
31	241	10.6	921	2	US-10-153-273-8 Sequence 8, Appl
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33	239	10.5	1115	1	US-08-487-826B-2 Sequence 2, Appl
34	239	10.5	1115	2	US-09-210-288-2 Sequence 2, Appl
35	239	10.5	1115	2	US-10-153-273-2 Sequence 2, Appl
36	239	10.5	1115	6	5198347-6 Patent No. 5198347
37	233	10.2	407	2	US-10-087-013-8 Sequence 8, Appl
38	229.5	10.1	311	2	US-10-087-013-10 Sequence 10, Appl
39	218	9.6	308	2	US-10-087-013-11 Sequence 11, Appl
40	216.5	9.5	351	2	US-10-087-013-9 Sequence 9, Appl
41	207	9.1	294	2	US-10-087-013-7 Sequence 7, Appl
42	197.5	8.7	411	1	US-08-568-459A-20 Sequence 20, Appl
43	197.5	8.7	411	1	US-08-487-826B-32 Sequence 32, Appl
44	197.5	8.7	411	2	US-09-210-288-20 Sequence 20, Appl
45	197.5	8.7	411	2	US-10-153-273-20 Sequence 20, Appl

## ALIGNMENTS

RESULT 1  
US-08-487-826B-16  
Sequence 16, Application US/08487826B  
Patent No. 5993827  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/487, 826B  
FILING DATE: 10-SEP-1993  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Israelsen, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121,001CP1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 16:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2182 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: N-terminal  
US-08-487-826B-16  
Query Match 44.4%, Score 1010, DB 1, Length 2182;

Best Local Similarity 48.54; Pred. No. 3.2e-82;  
Matches 213; Conservative 66; Mismatches 94; Indels 66; Gaps 16;  
QY 4 SGGSG---GTOD-----EDAKHLDPEGQKVADE--VHGEAKNYSELKSLASL-1 50  
DB 11 SGGSSSGKGDQSEIYIVSBAKOLLDRVGEKYBEKYNKGDADAKYIEALKGNLNTANGR 70  
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DB 71 SSFTASSTETCTLVVEYERVNGDKRHPCKRKAANEVDNRFSDTLGGQCTYNRICKDSQ 130  
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DB 296 IKTACN-VGKG---TNGQCHC-----IGGD---VPTYFDVPOYLAEFEEMA 335  
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QY 396 GSYENWIDNQRKQPKOKK 414  
DB 393 RMYETWIDNQRKQPKOKK 411  
RESULT 2  
US-08-568-459A-12  
Sequence 12, Application US/08568459A  
Patent No. 5849306  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellems, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/568,459A  
FILING DATE: 07-DEC-1995  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Izaelsen, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121.001CPI  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHEICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
US-08-568-459A-12  
Query Match 42.0%; Score 956; DB 1; Length 2710;  
Best Local Similarity 46.44; Pred. No. 3.5e-77;  
Matches 198; Conservative 56; Mismatches 111; Indels 62; Gaps 13;  
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QY 108 SNGMTCAPFRRLHCNKNFPMNSNDSSAKHDLAEVCAAKYEGESIKTHYPKDYSKY 167  
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QY 228 LKDEAKRYNGDEDPNPFYKLRDMWTANRETVGMATCSKELDNSSYFRATCDTGQGP 287  
DB 234 LNGAEA--RYG--NDPFFKLRDMWTANRETVKAITCNAM--GNTYFATCN---RG- 283  
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DB 284 ERTGYCRCDNDQ-----VPTYFDVPOYLAEFEEMAEDCRKKKKIK 327  
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RESULT 3  
US-08-487-826B-12  
Sequence 12, Application US/08487826B  
Patent No. 593827  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellems, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible

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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/487,826B
FILING DATE: 10-SEP-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Israelien, Ned
REGISTRATION NUMBER: 29,655
REFERENCE/DOCKET NUMBER: NIH121.001CP1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 2710 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
US-08-487-826B-12

Query Match 42.0%; Score 956; DB 1; Length 2710;
Best Local Similarity 46.4%; Pred. No.3.5e-77;
Matches 198; Conservative 56; Mismatches 111; Indels 62; Gaps 13;

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Qy 408 QFDKQKK 414
Db 388 QFDKQKK 394

RESULT 4
US-09-210-288-12
Sequence 12, Application US/09210288
GENERAL INFORMATION:
APPLICANT: Sim, Kim L.
APPLICANT: Chitnis, Chetan
APPLICANT: Miller, Louis H.
APPLICANT: Peterson, David S.
APPLICANT: Su, Xin-zhan
APPLICANT: Wellens, Thomas E.
```

```
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSER: Knobbe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/210,288
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36,516
REFERENCE/DOCKET NUMBER: NIH121.1FMDV1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-0176
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 2710 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
US-09-210-288-12

Query Match 42.0%; Score 956; DB 2; Length 2710;
Best Local Similarity 46.4%; Pred. No.3.5e-77;
Matches 198; Conservative 56; Mismatches 111; Indels 62; Gaps 13;

Qy 4 SGGSGGTQDEDAKHLVDFGQKVDVEHGEAKNYVSELSLASLIGETAFTVKSMT 63
Db 14 AAGGDDIEDSAGKMPRIGKDVYDKYBEKEREKGLQGRLS-----EAKFEKNESDP 67
Qy 64 ES-----KYTELIEANSKRNPK-----KDGKNDVDRFSYKEQAGYNNKKMKC 107
Db 68 QTPEDPCDLHKYHTNVTN-VINPCADRSDFRSDEYGGQCTHNRKIDSQQGNKG--- 123
Qy 108 SNGMTCAPFRRLHLCNKNFPMNSNDSSKAGHDLAECMAKYEKESIKTHYPKYDSKY 167
Db 124 ----ACAPYRLHVCNDNLEQIEPIKITNT-HNLLVDCMAKKEGOSITODYPRYQTY 178
Qy 168 PGSDPFCMTLARSFADIGDIIRGRDLYLGKKKKQKETERREKLDEQKLEIFKLIHDN 227
Db 179 GDSSSQICTMLARFADIGDIVRGDLYLGSPQRIK-----QROOLENNLKTITGKIYK 233
Qy 228 LKDKAQRKRYNGDEPNFYKLREDMWTANRETVMGAMTCSKELNNSYFRATCNDYQGP 287
Db 234 LKGAEA--RYG--NDPEFKLREDMWTANRETVMKAITCNAM--GNTYFHATCN---RG- 283
Qy 288 SQTINKRCDDKCANAKGPKAAGDGVTVPTFYDVPQYLRWFEEMAEDECRKKKKKLE 347
Db 284 ERTGYRCRCDNDQ-----VPTFYDVPQYLRWFEEMAEDECRKKKKKIK 327
Qy 348 NLEKQCRGKSDSYRYCSRNGYDCEQITSRKGRVWKGCTDCEFFACGSYENMIDNQRK 407
Db 328 DVKNCGRGKXEDKDRYCSRNGYDCEKTKRAIGLRYGKQICISCLYACNPVDMINQKE 387
Qy 408 QFDKQKK 414
Db 388 QFDKQKK 394
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RESULT 5  
US-10-153-273-12  
Sequence 12, Application US/10153273  
Patent No. 6962987  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chilnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellems, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESSES:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,268  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FMDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHEITICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 12:  
US-10-153-273-12  
Query Match 42.0%; Score 956; DB 2; Length 2710;  
Best Local Similarity 46.4%; Pred. No. 3.5e-77;  
Matches 198; Conservative 56; Mismatches 111; Indels 62; Gaps 13;  
QY 4 SGGSGGTODEDAKAVLDFGQKVDHVEGAKNVYSELKSLISLASIGETAFYVKSQOT 63  
DB 14 AAGGDDIDESAKHMFRIKDVYDKVEAKERKGLQGRLS-----EAKFEKNESDP 67  
QY 64 ES-----KYTLIEANSKRNPCK-----KDGKNDVDRFSVKEGAGYDKKKMKC 107  
DB 68 QTPEDPCDLDRKYHTNVTTN-VINPCADRSVRSFDEYGGQCTNHRIKDSQGDKNG--- 123  
QY 108 SNGMTCAPFRRLHLGNKFPNNNSNDSSYAKHDLAEYCMAYEGESI KTHYPKYDSKY 167  
DB 124 ----ACAPYRLHVCDDNLEQIEPIKITNT-HNLLVDVCMMAKFRGGISTDYDPRKYQNTY 178  
QY 168 PGSDPFCMTLARSFADIGDIIIRGDLVYGNKKKKQNGKETREKLEOKLKEIFKKIHDN 227

DB 179 GDSPSQCTMLARSPADIGDIVRGRDLYLGNPQEIK-----QROQLENNLKITFGKIYEK 223  
QY 228 LKDKEAQKRYNGDEDPNFYKLRBDMWTANRETYWGANTCSKEIDNSSYFPATCNDTGQCP 267  
DB 234 LNGAEA--RYG--NDPEFFKLRBDMWTANRETYWKAITCNAM--GNTYFPATCN---RG- 283  
QY 288 SQTNNKRCRCCKDKGANAQRKAGDGVITYPTYFDYVPQYLRFWEAEAEPCRKKKKLE 347  
DB 284 ERTKGYCRCDNDQ-----VPYFDYVPQYLRFWEAEAEPCRKKKKIK 327  
QY 348 NLEKQCRKQKSDERYCSRNGYDCBQTI SRKGVKRMKSGCTDCEFFAGSYEMWIDQRK 407  
DB 328 DVKRCRQKDEKDRICSRNGIDCEETIKRAIGLRYGKQCIISLYVNCNRYVWINKKE 387  
QY 408 QPDKQKK 414  
DB 388 QPDKQKK 394

RESULT 6  
US-08-487-826B-14  
Sequence 14, Application US/08487826B  
Patent No. 5993827  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chilnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellems, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESSES:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/487,826B  
FILING DATE: 10-SEP-1993  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Israelien, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121.001CP1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 14:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 3060 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-487-826B-14  
Query Match 42.0%; Score 956; DB 1; Length 3060;  
Best Local Similarity 46.4%; Pred. No. 4.1e-77;  
Matches 198; Conservative 56; Mismatches 111; Indels 62; Gaps 13;  
QY 4 SGGSGGTODEDAKAVLDFGQKVDHVEGAKNVYSELKSLISLASIGETAFYVKSQOT 63  
DB 12 AAGGDDIDESAKHMFRIKDVYDKVEAKERKGLQGRLS-----EAKFEKNESDP 65

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Qy 64 ES-----KYTELLEANSKRNPK-----KDGKNDVDRSPVKEAGYDNKKMKC 107
Db 66 QTPEDPCOLDKHYNVTN--VINPCADRSVDRSPDEVGQCTNHRIDSOQGNKG--- 121
Qy 108 SNGTCAFPRLHLCKNKPNNNSNDSSKAGDILAEVCAAKYEGESIKTHYPKYDSKY 167
Db 122 ----ACAPYRRLHVCDDMLEQLEPIKINT--HNLIVDCMAKFEQGSITODYPRYQATY 176
Qy 168 PGSDPMTMLARSPADIGDIIRGRDLYLGNKKKKQKQKTEREKLEOKLEIFKKIDN 227
Db 177 GDSQITMLARSPADIGDIVRGDLYLGNPQETK-----ORQLENNLKITIKIYEK 231
Qy 228 LKDEAKRYNGDEDPNFYKJREDWMTANRETVMGAMTCSKELDNSSYFRATCNDTQGP 287
Db 232 LINGEA--RYG--NDPEFKJREDWMTANRETVMKALITCNAM--GNTYFHTCN---RG- 281
Qy 288 SQTNNKCRDCKDKNAGKAPKAGDGVTVTPYFDYVQYLRWFEMWADFCKKKKKLE 347
Db 282 ERTGYGRCNDQ-----VPTYFDYVQYLRWFEMWADFCKKKKKIK 325
Qy 348 NLEKQCRGKDSDEVRYCSRNGYDCEOTISRKGYRMKGCTDCEFFAGSYENWIDNQRK 407
Db 326 DVKNCRCRKDEKDRYCSRNGYDCEKTKRAIGKLYGKQCTSLYACNPYVDWIDNQRK 385
Qy 408 QFDKOKK 414
Db 386 QFDKOKK 392

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RESULT 7
US-08-568-459A-10
; Sequence 10, Application US/08568459A
; Patent No. 5849306
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chitnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.
; APPLICANT: Su, Xin-zhaun
; APPLICANT: Wellens, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knobbe Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th Floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/568,459A
; FILING DATE: 07-DEC-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Israelien, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH121.001CP1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-0176
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein

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; HYPOTHETICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
US-08-568-459A-10

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Query Match 37.1%; Score 845; DB 1; Length 700;
Best Local Similarity 54.9%; Pred. No. 6,2e-68;
Matches 168; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

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Qy 113 CAPRRLHLCKNKPNNNSNDSSKAGDILAEVCAAKYBESIKTHYPKYDSKRGDF 172
Db 10 CAPRRLHLCKY---NSESIDTSTYKLLLEVCAAKYBENSINTHTORHTNEDSAS 66
Qy 173 PMCTMLARSPADIGDIIRGRDLYLG--NKKKQKQKTEREKLEOKLEIFKKH--DWLX 229
Db 67 QCTVLARSPADIGDIVRGDLYLGYDNKEQ-----RKGLQKLDIKKIKHKDVMK 120
Qy 230 DKEAKRYNGD--EDPNFYKJREDWMTANRETVMGAMTCSKELDNSSYFRATCNDTQGPS 288
Db 121 TNGAQERYIDAKAGDGFQJLRDWMTSNRETVMKALICHAPKANYFIKTACN--VGKG-- 177
Qy 289 QTNKCRDCKDKNAGKAPKAGDGVTVTPYFDYVQYLRWFEMWADFCKKKKKLE 348
Db 178 -TNGQCHC-----IGD-----VPTYFDYVQYLRWFEMWADFCKKKKKLE 220
Qy 349 LKQCRGKDSDEVRYCSRNGYDCEOTISRKGYRMKGCTDCEFFAGSYENWIDNQRK 408
Db 221 LQKQCRDYEQN---LYCSGNGDCTKTIYKKGKLVIGBHTNCSVCMETWIDNQRK 277
Qy 409 QFDKOKK 414
Db 278 QFDKOKK 283

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RESULT 8
US-08-487-826B-10
; Sequence 10, Application US/08487826B
; Patent No. 5993827
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chitnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.
; APPLICANT: Su, Xin-zhaun
; APPLICANT: Wellens, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 45
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knobbe Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th Floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/487,826B
; FILING DATE: 10-SEP-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Israelien, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH121.001CP1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-0176
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein

```



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CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/210,288
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36,516
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 700 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEetical: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-10-153-273-10

Query Match          37.1%; Score 845; DB 2; Length 700;
Best Local Similarity 54.9%; Pred. No. 6.2e-68;
Matches 168; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

QY 113 CAPRRRLHLCNKNPNNNSNDSSKAKHDLAEVCAAYEGESIKTHYPKYDSKYPGSDP 172
DB 10 CAPRRRLHLCY---NLESIDTSTHKLLEVCMAAYEGENSINTHYQTQRTNEDSAS 66
QY 173 PMCTMLARSPADIGDIIRGRDLYLG--NKKKKQKQKTEREKLEKKEIKFIKH-DLK 229
DB 67 QLCVTLARSPADIGDIYRGKDLVGYDNKEKQ-----RKLEQKDKDIFKKLHKDVMK 120
QY 230 DKEQKRNQGD-EDPNFYKLREDMWTANRETYWGAMTCSKELDSSYPATCNDTCGSGPS 288
DB 121 TNGQDERYIDAKGDPFQLBEDMTSNRETYWKALIGHAKREANYPIKTKACN-VGKG-- 177
QY 289 QTHNCRCDKDKGANKGPKAGDGVTVIPVTFDYVPOYLRFEEWADFCRKKKKKLEN 348
DB 178 -TNGQCHC-----IGSD-----VPTTFDYVPOYLRFEEWADFCRKKKKKLEN 220
QY 349 LEKQCKGKSDERYCSRNGYDCEQTSRKQKVRMGKCTDCCFACSGYENWIDNRQKQ 408
DB 221 LQKQCRDYEQN---LYSGNGYDCTKTIYKKGKLVIGHCTNCSVWCMRYETWIDNRKQK 277
QY 409 FDKQKK 414
DB 278 FLKQKR 283

RESULT 11
US-10-087-013-2
Sequence 2, Application US/10087013
Patent No. 6855323
GENERAL INFORMATION:
APPLICANT: Arthur Scherf
APPLICANT: Louis H. Miller
APPLICANT: Benoit Gamaia
APPLICANT: Dier I. Baruch
APPLICANT: Pierre Buffet
APPLICANT: Christine Scheidig
APPLICANT: Jurg Gysin
APPLICANT: Bruno Pouvelle
APPLICANT: No. 6855323ufaka Fujii
APPLICANT: Joseph Smith
TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF
TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1
FILE REFERENCE: NIH176.001C1
CURRENT APPLICATION NUMBER: US/10/087,013
```

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CURRENT FILING DATE: 2002-02-21
PRIOR APPLICATION NUMBER: PCT/US00/24195
PRIOR FILING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/152,023
PRIOR FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 11
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 2
LENGTH: 3542
TYPE: PRT
ORGANISM: Plasmodium falciparum
US-10-087-013-2

Query Match          30.3%; Score 690; DB 2; Length 3542;
Best Local Similarity 38.3%; Pred. No. 7.3e-53;
Matches 162; Conservative 64; Mismatches 125; Indels 72; Gaps 19;

QY 13 EDAGVLDPEGQKV-HDEVGEAKNYVSELKSLISLIGETAFYTK----- 59
DB 33 KSARNVLERYAKNIRHPSKY--AKEHYDSLKGLTAKAFRGGPGSTPVAKHNYVYPPCNL 90
QY 60 --SMQTSKYTELEANSKRNPKCKDGKNDVDFSVYEQAGYDNK----KQKSGNWTG 113
DB 91 DKHEHTLRYDDV---NLRRPC---HGRQNRFDDEBESCGNKLRNYRK-NDATAC 141
QY 114 APPRRRLHLCNKNPNNNSNDSSKAKHDLAEVCAAYEGESIKTHYPKYDSKYPGSDP 173
DB 142 APPRRRLHLCNKNPNNNSNDSSKAKHDLAEVCAAYEGESIKTHYPKYDSKYPGSDP 173
QY 174 MCTMLARSPADIGDIIRGRDLYLGKKKKKQKQKTEREKLEKKEIKFIKHDLKDKEA 233
DB 195 ACTALARSPADIGDIYRGKDLVGYDNKEKQ-----KENVHDKVETGLREYFKKIHDMED-EV 243
QY 234 QKRVNGEDPNFYKLREDMWTANRETYWGAMTCSKELDSSYPATCNDTCGSGSQTNK 293
DB 244 KNDYNPDSGSGNYTLRRAMNVRNKKWEALTCDASY-KSGYFMQESNT---PLFSNPK 299
QY 294 CRCDDKGAANKGPKAGDGVTVIPVTFDYVPOYLRFEEWADFCRKKKKKLENLEKQK 353
DB 300 C-----GHKQK-----VPTNLDYVPOYLRFEEWADFCRKKKKKLENLEKQK 343
QY 354 RGNKDSERYCSRNGYDCEQTSRKQKVRMGKCTDCCFACSGYENWIDNRQKQK 413
DB 344 R-NDK--EPLYSNHNHDCCTTIWKGIHLDNKCTDCTCKVFEWLGNGQEAFFKQK 400
QY 414 -KY 415
DB 401 EKY 403

RESULT 12
US-08-568-459A-18
Sequence 18, Application US/08568459A
Patent No. 5849306
GENERAL INFORMATION:
APPLICANT: Sim, Kim L.
APPLICANT: Chitnis, Chetan
APPLICANT: Miller, Louis H.
APPLICANT: Peterson, David S.
APPLICANT: Su, Xin-zhaun
APPLICANT: Willems, Thomas B.
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESS: Knobbe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
```

```
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/568,459A
FILING DATE: 07-DEC-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Israel, Ned
REGISTRATION NUMBER: 29,655
REFERENCE/DOCKET NUMBER: NIH121.001CPI
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
LENGTH: 362 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NO
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
US-08-568-459A-18
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Query Match 16.7%; Score 379.5; DB 1; Length 362;

Best Local Similarity 31.3%; Pred. No. 4.6e-26; Matches 93; Conservative 14; Mismatches 149; Indels 41; Gaps 5;

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Oy 113 CAPFRLHLCKNFPNNNSNDSSKAKHDLAEVCAAKYEGESIKTHYPKYDSKYPGSDF 172
|||:|||||:|
2 CAPFRLHLCOY---NLKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 58
Oy 173 PMCTMLARSPADIGDIRGRDLYIG--NKKKKONGKETEREKLEQKKEIFKTHDLKD 230
|||:|||||:|
Db 59 QLCIVLARSPADIGDIRGRDLYIGDYNKXXXXXXXXXXXXXXXXXXXXXXXXXXXX 118
Oy 231 KEAQKRVNGDEDPNFKREDPMWTANRETVGAMTCSKELDNSYFRATCNDTGQPSQT 290
|||:|||||:|
Db 119 XXXXXXXKGD---FQRLREDMTSNRETVKALICAXXXXXXXXXXXXXC----- 164
Oy 291 HNKCRCDKDGKAGNAPKAGDGVTVIVTFDYVPQYLRFEEWAEDFCRKKKKLENTLE 350
|||:|||||:|
Db 165 -----XXXXXXXXXXXXXXXXXXXXXXXXXXVPQYLRFEEWAEDFCRKKKKLENTLQ 214
Oy 351 KQCRGKDSDEYRYCSRNGYDCEQITSRKGVKMGKCTDCCFPACGSEYEMIDNQRK 407
|||:|||||:|
Db 215 KQ-----CXKXXXXCXKXXXXXXXXXXXXXXXXXXCTNCSVCMYETWIDNQRK 259
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RESULT 13  
US-08-487-826B-30  
Sequence 30, Application US/08487826B  
Patent No. 593827

GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660

```
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/487,826B
FILING DATE: 10-SEP-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Israel, Ned
REGISTRATION NUMBER: 29,655
REFERENCE/DOCKET NUMBER: NIH121.001CPI
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 30:
SEQUENCE CHARACTERISTICS:
LENGTH: 362 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NO
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
US-08-487-826B-30
```

Query Match 16.7%; Score 379.5; DB 1; Length 362;

Best Local Similarity 31.3%; Pred. No. 4.6e-26; Matches 93; Conservative 14; Mismatches 149; Indels 41; Gaps 5;

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Oy 113 CAPFRLHLCKNFPNNNSNDSSKAKHDLAEVCAAKYEGESIKTHYPKYDSKYPGSDF 172
|||:|||||:|
2 CAPFRLHLCOY---NLKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 58
Oy 173 PMCTMLARSPADIGDIRGRDLYIG--NKKKKONGKETEREKLEQKKEIFKTHDLKD 230
|||:|||||:|
Db 59 QLCIVLARSPADIGDIRGRDLYIGDYNKXXXXXXXXXXXXXXXXXXXXXXXXXXXX 118
Oy 231 KEAQKRVNGDEDPNFKREDPMWTANRETVGAMTCSKELDNSYFRATCNDTGQPSQT 290
|||:|||||:|
Db 119 XXXXXXXKGD---FQRLREDMTSNRETVKALICAXXXXXXXXXXXXXC----- 164
Oy 291 HNKCRCDKDGKAGNAPKAGDGVTVIVTFDYVPQYLRFEEWAEDFCRKKKKLENTLE 350
|||:|||||:|
Db 165 -----XXXXXXXXXXXXXXXXXXXXXXXXXXVPQYLRFEEWAEDFCRKKKKLENTLQ 214
Oy 351 KQCRGKDSDEYRYCSRNGYDCEQITSRKGVKMGKCTDCCFPACGSEYEMIDNQRK 407
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Db 215 KQ-----CXKXXXXCXKXXXXXXXXXXXXXXXXXXCTNCSVCMYETWIDNQRK 259
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RESULT 14  
US-09-210-288-18  
Sequence 18, Application US/09210288  
Patent No. 6392026

GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California

CITY: Newport Beach  
 STATE: California  
 COUNTRY: US  
 ZIP: 92660  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patentin Release #1.0, Version #1.25  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/10/153,273  
 FILING DATE: 21-May-2002  
 CLASSIFICATION: <Unknown>  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US/09/210,288  
 FILING DATE: <Unknown>  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Fuller, Michael  
 REGISTRATION NUMBER: 36,516  
 REFERENCE/DOCKET NUMBER: NIH121.1FMDV1  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (619) 235-8550  
 TELEFAX: (619) 235-0176  
 INFORMATION FOR SEQ ID NO: 18:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 362 amino acids  
 TYPE: amino acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: peptide

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; ANTI-SENSE: NO
; FRAGMENT TYPE: internal
; ORIGINAL SOURCE:
; ORIGIN:
; ORIGINATOR: CTO ID NO: 18

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[illegible]

Search completed: December 29, 2005, 23:17:19  
Job time : 11.4698 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: December 29, 2005, 23:15:07 ; Search time 45.2601 Seconds  
(without alignments)  
3831.174 Million cell updates/sec

Title: US-09-508-967-1\_COPY\_1\_415  
2276  
Sequence: 1 MATSGSGSGGDDAKHYLD.....GSYENWIDNKKQKQKQKY 415

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications AA Main:  
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2: /cgn2\_6/ptodata/1/pubpaa/US08\_PUBCOMB.pep:\*  
3: /cgn2\_6/ptodata/1/pubpaa/US09\_PUBCOMB.pep:\*  
4: /cgn2\_6/ptodata/1/pubpaa/US10A\_PUBCOMB.pep:\*  
5: /cgn2\_6/ptodata/1/pubpaa/US10B\_PUBCOMB.pep:\*  
6: /cgn2\_6/ptodata/1/pubpaa/US11\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	956	42.0	2710	4	US-10-153-273-12 Sequence 12, Appl
2	845	37.1	700	4	US-10-153-273-10 Sequence 10, Appl
3	690	30.3	3542	4	US-10-087-013-2 Sequence 2, Appl
4	379.5	16.7	362	4	US-10-153-273-18 Sequence 18, Appl
5	360.5	15.8	411	4	US-10-153-273-19 Sequence 19, Appl
6	318	14.0	1143	3	US-09-924-154-14 Sequence 14, Appl
7	318	14.0	1210	5	US-10-677-980-2 Sequence 2, Appl
8	304	13.4	1435	4	US-10-153-273-4 Sequence 4, Appl
9	293	12.9	616	4	US-10-293-913A-4 Sequence 4, Appl
10	292	12.8	616	4	US-10-293-913A-2 Sequence 2, Appl
11	292	12.8	1421	3	US-09-924-154-13 Sequence 13, Appl
12	285.5	12.5	749	4	US-10-153-273-6 Sequence 6, Appl
13	285.5	12.5	1086	3	US-09-924-154-15 Sequence 15, Appl
14	241	10.6	921	4	US-10-153-273-8 Sequence 8, Appl
15	239	10.5	1115	4	US-10-153-273-2 Sequence 2, Appl
16	238	10.5	972	3	US-09-924-154-16 Sequence 16, Appl
17	233	10.2	407	4	US-10-087-013-8 Sequence 8, Appl
18	229.5	10.1	311	4	US-10-087-013-10 Sequence 10, Appl
19	218	9.6	308	4	US-10-087-013-11 Sequence 11, Appl
20	216.5	9.5	351	4	US-10-087-013-9 Sequence 9, Appl
21	216.5	9.5	1501	3	US-09-924-154-17 Sequence 17, Appl
22	216.5	9.5	1568	5	US-10-712-533A-12 Sequence 12, Appl
23	207	9.1	294	4	US-10-087-013-7 Sequence 7, Appl
24	197.5	8.7	411	4	US-10-153-273-20 Sequence 20, Appl
25	159.5	7.0	282	4	US-10-153-273-16 Sequence 16, Appl
26	158.5	7.0	277	4	US-10-153-273-15 Sequence 15, Appl
27	130.5	5.7	448	4	US-10-153-668-370 Sequence 370, App

28	126	5.5	291	4	US-10-153-273-13	Sequence 13, Appl
29	125.5	5.5	6761	5	US-10-732-923-15035	Sequence 15035, A
30	124	5.4	706	4	US-10-104-047-3843	Sequence 3843, A
31	121	5.3	311	4	US-10-153-273-21	Sequence 21, Appl
32	119.5	5.3	754	4	US-10-153-668-254	Sequence 254, App
33	118	5.2	737	5	US-10-450-763-40642	Sequence 40642, A
34	117	5.1	680	6	US-11-097-143-30936	Sequence 30936, A
35	116.5	5.1	1255	5	US-10-471-934-4	Sequence 4
36	116.5	5.1	1257	4	US-10-408-765A-1486	Sequence 1486, Ap
37	115.5	5.1	281	4	US-10-424-599-145507	Sequence 145507, A
38	115.5	5.1	463	4	US-10-425-115-225002	Sequence 225002, A
39	115.5	5.1	905	4	US-10-437-963-152106	Sequence 152106, A
40	115	5.1	324	4	US-10-153-273-17	Sequence 17, Appl
41	114.5	5.0	610	3	US-09-989-920-212	Sequence 212, App
42	114.5	5.0	665	3	US-09-820-843A-107	Sequence 107, App
43	113	5.0	1985	5	US-10-732-923-3351	Sequence 3351, Ap
44	112.5	4.9	1737	4	US-10-437-963-194264	Sequence 194264, A
45	111.5	4.9	454	6	US-11-004-418A-35	Sequence 35, Appl

## ALIGNMENTS

RESULT 1  
US-10-153-273-12  
; Sequence 12, Application US/10153273  
; Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Childs, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbhe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum

SEQUENCE DESCRIPTION: SEQ ID NO: 12:  
US-10-153-273-12

Query Match 42.0%; Score 956; DB 4; Length 2710;

Best Local Similarity 46.4%; Pred. No. 5.5e-71;  
Matches 198; Conservative 56; Mismatches 111; Indels 62; Gaps 13;

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QY 4 SGGSGGTDEDAKYLDFGQKVDHVEHGAKNYSELKSLASLIGETAFVTKSMQT 63
DB 14 AAGGDDIDEBAKMFRIKGVYDKVEAKERKGLQGRLS-----EAKFEKNESDP 67
QY 64 ES-----KYTELIANSKRNPK-----KDGKNDVDRSVYKQAGYNNKKMC 107
DB 68 QTPEDPCDLKHRYHNTVTN-VINFCADRSDFRSDEYGGQCTHNRIDSQGGDNKG--- 123
QY 108 SNGMTCAFERLHCNKKFPMNNSDSKAKHDLAEVCAAKYGESIKTHYPRKYSKY 167
DB 124 ---ACAPYRLHVCDDQLEQIEPIKTKNT-HNLIVDCMAKKEGQSTODYPYTKQTY 178
QY 168 PGSPFPMCTMLARSPADIGDIIRGRDLYGNKKKKKONGKETEREKLEQKLEIFKIHND 227
DB 179 GDSFQICITMLARSPADIGDIIRGRDLYGNPQIK-----QROLENNLKITIFGKIYK 233
QY 228 LKDEAQRKRYNGEDDPNFYKLRDWMWTANRETWGMATCSKELDSSYFRATCNDTGOGP 287
DB 234 LKGAFA--RYG--NDPEFKLRDWMWTANRETWGMATCSKELDSSYFRATCNDTGOGP 283
QY 268 SQTNNKCRCDKXGANNAPKAGDGVTVIPYFPYVQYLRWFEEMADEFCRKKKKKLE 347
DB 284 ERTKQYCRCDNDQ-----VPTFPYVQYLRWFEEMADEFCRKKKKKIK 327
QY 348 NLEKCRGKDSDEYRYSRNGYDCEQTSRKGKRYMKGCTDCEPAGSYENWIDNORK 407
DB 368 DYKRCRCKDKEDKORYSRNGYDCEKTKRAIKGLRYGKQICISLYACNPYDWINNKE 387
QY 408 QFDKOKK 414
DB 368 QFDKOKK 394
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RESULT 2  
US-10-153-273-10  
Sequence 10, Application US/10153273  
Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Kin-zhaun  
Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 10:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 700 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHEetical: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 10:  
US-10-153-273-10

Query Match 37.1%; Score 845; DB 4; Length 700;  
Best Local Similarity 54.9%; Pred. No. 2.3e-62;  
Matches 168; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

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QY 113 CAPFRLHLCNKKFPMNNSDSKAKHDLAEVCAAKYGESIKTHYPRKYSKYPSDF 172
DB 10 CAPFRLHLCY---NLESIDTSTHKLLEVCMAAKYBGSINTHYTHQRTNEDSAS 66
QY 173 PMCTMLARSPADIGDIIRGRDLYG--NKKKKONGKETEREKLEQKLEIFKIH-DNLK 229
DB 67 QLTVALARSPADIGDIIRGRDLYGYNKKEQO-----RKLEQKLDLFFKIHADVMK 120
QY 230 DKEAQRKRYNGD-EDPNFYKLRDWMWTANRETWGMATCSKELDSSYFRATCNDTGOGPS 288
DB 121 TNGQERYIDAKAGDFQLREDWMTSNRETWGMATCSKELDSSYFRATCNDTGOGPS 177
QY 289 QTNKCRCDKXGANNAPKAGDGVTVIPYFPYVQYLRWFEEMADEFCRKKKKKLEN 348
DB 178 -TNGQCHC-----IGGD-----VPTFPYVQYLRWFEEMADEFCRKKKKKLEN 220
QY 349 LEKCRGKDSDEYRYSRNGYDCEQTSRKGKRYMKGCTDCEPAGSYENWIDNORK 408
DB 221 LQKCRDYEON--LYCSGNGYDCTKITIKKGLVISHCTNCSVCMETWTIDNOKKE 277
QY 409 FDKOKK 414
DB 278 FDKOKK 283
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RESULT 3  
US-10-087-013-2  
Sequence 2, Application US/10087013  
Publication No. US20040062769A1  
GENERAL INFORMATION:  
APPLICANT: Arthur Scherf  
APPLICANT: Louis H. Miller  
APPLICANT: Benoit Gamain  
APPLICANT: Dior I. Baruch  
APPLICANT: Pierre Buffet  
APPLICANT: Christine Scheidig  
APPLICANT: Jurg Gysin  
APPLICANT: Bruno Pouvelle  
APPLICANT: No. US20040062769A1utaka Fujii  
APPLICANT: Joseph Smith  
TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF  
PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1  
TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1  
FILE REFERENCE: NIH176.001C1  
CURRENT APPLICATION NUMBER: US/10/087, 013  
CURRENT FILING DATE: 2002-02-21  
PRIOR APPLICATION NUMBER: PCT/US00/24195  
PRIOR FILING DATE: 2000-09-01  
PRIOR APPLICATION NUMBER: 60/152,023



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COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/153.273
FILING DATE: 21-May-2002
CLASSIFICATION: <unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/210.288
FILING DATE: <unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36, 516
REFERENCE/DOCKET NUMBER: NIH121.1FMDV1
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
LENGTH: 411 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NO
FRAGMENT TYPE: internal
ORIGINAL SOURCE:
SEQUENCE DESCRIPTION: SEQ ID NO: 19:
US-10-153-273-19

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Query Match 15.8%; Score 360.5; DB 4; Length 411;
Best Local Similarity 29.1%; Pred. No. 9.8e-22; Indels 33; Gaps 5;
Matches 86; Conservative 22; Mismatches 155;
QY 113 CAPFRRLHCNKNFPMNNSDSKAKHDLAEVCAAYEGESIKTHYPKYDSKXPGSDF 172
DB 34 CAPFRRLHCNKNFPMNNSDSKAKHDLAEVCAAYEGESIKTHYPKYDSKXPGSDF 92
QY 173 PNCMTLANSFADIGITIGRDLYLGNKKKKKNGKTEBEKLEFKIKIHNLKKE 232
DB 93 QICMTLANSFADIGITIGRDLYLGNPKGKXXXXX-----XXXXXXXXXXXXX 143
QY 223 AQKRVNGEDPWFYTLREDMTANRETYWGAWTCSEKLDNSYFRATCNDTGQSPQTHN 292
DB 144 XXXXXXXXXXXXNDPEFFKLRDMWTANRETYWKAITCN--AXXXXXXXXXXC----- 189
QY 293 KCRCDKDGANAGKPKAGDGVTVIPYFDVYPOYLRFEEWAEDFCRKKKKLENLKQ 352
DB 190 -----XXXXXXXXXXXXXXXXXXXXXXXXXVPOYLRFEEWAEDFCRKKKKIINDVRN 241
QY 353 C-RGKQKDEYRYCSRNGYDCQOTISRKGVKMGKCTDCFPACSYENMTDNRK 407
DB 242 CXXXXXXXXXXXXXCCCCXXXXXXXXXXXXXXXXXXXXCISCIYACNPYDWINQRE 297

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RESULT 6
US-09-924-154-14
Sequence 14, Application US/09924154
Patent No. US20020127241A1
GENERAL INFORMATION:
APPLICANT: Narum, David L.
APPLICANT: Sim, Kim L.
TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use
FILE REFERENCE: 05213-0465 43170-262105
CURRENT APPLICATION NUMBER: US/09/924,154
CURRENT FILING DATE: 2001-08-07
PRIOR APPLICATION NUMBER: US 60/223,525
PRIOR FILING DATE: 2000-08-07
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin version 3.1

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; SEQ ID NO 14
; LENGTH: 1143
; TYPE: PRT
; ORGANISM: Mammalian
US-09-924-154-14

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Query Match 14.0%; Score 318; DB 3; Length 1143;
Best Local Similarity 25.3%; Pred. No. 1.4e-17;
Matches 94; Conservative 53; Mismatches 97; Indels 128; Gaps 17;
QY 64 ESKYTELLEANSKRNPKCKGKGNVD--RFSYKQAGY-----DNKKKCSNGM-- 111
DB 426 DCRITATIKSPLNGPAK-----NDVDIASQINVDLRGCGNYSNNKSMCTGFTN 480
QY 112 ----TCAPFRRLHCNKNFPMNNSDSKAKHDLAEVCAAYEGESIKTHYPKYDSKY 167
DB 481 KFPOTCEPPRRQTLCLGRYTLRHGHBEDEYKHLG--ASIEAQLLYKYKXENDN- 535
QY 168 PGSDPFCMTLANSFADIGITIGRDLYLGNKKKKKNGKTEBEKLEFKIKIHNL 227
DB 536 ----ALCSIIQNSYADLADIKSDII-----KQYGGKMEENLNKVK--DK 577
QY 228 LKQKQACRYNGDEDPWFYTLREDMTANRETYWGAWTCSEKLDNSYFRATCNDTGQSP 287
DB 578 KRNEESLKIF-----REKMDENKENYKVM--SAVLKN-----KETCK----- 614
QY 288 SQTNNKCRCDKDGANAGKPKAGDGVTVIPYFDVYPOYLRFEEWAEDFCRKKKKL- 346
DB 615 -----DYDK-----FQKLPQFLRFKMGWDGDFCEGRKEXY 645
QY 347 --ENLEKQCKGKDSERYCSRNGYDCQOTISRKGVKMGKCTDCFPACSYENMTDN 404
DB 646 SFESFPKVECKCKD-----CDEN-----TKNKKSEYKKWIDL 677
QY 405 QRKQFQK-KKY 415
DB 678 KKSSEYKQVDKY 689

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RESULT 7
US-10-677-980-2
Sequence 2, Application US/10677980
Publication No. US20050239730A1
GENERAL INFORMATION:
APPLICANT: Mayer, D.C.Gislaine
APPLICANT: Miller, Louis H.
TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE
FILE REFERENCE: NIH209.001C1
CURRENT APPLICATION NUMBER: US/10/677,980
PRIOR FILING DATE: 2003-10-02
PRIOR APPLICATION NUMBER: PCT/US02/10071
PRIOR FILING DATE: 2002-03-29
PRIOR APPLICATION NUMBER: US 60/281130
NUMBER OF SEQ ID NOS: 22
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 2
LENGTH: 1210
TYPE: PRT
ORGANISM: Plasmodium falciparum
US-10-677-980-2

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Query Match 14.0%; Score 318; DB 5; Length 1210;
Best Local Similarity 25.3%; Pred. No. 1.6e-17;
Matches 94; Conservative 53; Mismatches 97; Indels 128; Gaps 17;
QY 64 ESKYTELLEANSKRNPKCKGKGNVD--RFSYKQAGY-----DNKKKCSNGM-- 111
DB 420 DCRITATIKSPLNGPAK-----NDVDIASQINVDLRGCGNYSNNKSMCTGFTN 474
QY 112 ----TCAPFRRLHCNKNFPMNNSDSKAKHDLAEVCAAYEGESIKTHYPKYDSKY 167

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Db      475 KFPCTCEPPRRQTLCLGRTYLLHGHSEEDYKHLG-----ASIVEAQLLKYYKXKDN- 529
Qy      168 PGSPFPMCTMLARSPADIGDIIRGRDLVGNKKKKKQNGKENEREKLBOKLKIFPKIHND 227
Db      530 -----ALCSTIIONSTADLADIIGSDII-----KDYGGKMEENLKNVKN---DK 571
Qy      228 LKDKAQAQRYNGDEDPNFYKLRBEDWWTANRETVGAMTCSKELDNSSYFRATCNDTGGP 287
Db      572 KRNESELKIF-----REKWMDEKNENVMKVM---SAVLKN-----KETCK----- 608
Qy      288 SQTNNKRCQDXDKGANNAGKPYAGDGVTVIPTFYDYPQYLRWFEWMAEDFCRKKKKL- 346
Db      609 -----DYDK-----FOKIPQFLRWFEWMDDFCEKRXKEXIY 639
Qy      347 --ENLEKQCRGKXDSDEYRCSRGYDCEQTIISRKGRMGKGTDCFPAGSYENMTDN 404
Db      640 SFESFKECKKKD-----CDEN-----TCNNKSEYKRWIDL 671
Qy      405 QKQFQKQ-KKY 415
Db      672 KKSEYKQVDKY 683

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RESULT 8
US-10-153-273-4
; Sequence 4, Application US/10153273
; Publication No. US20020169305A1
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; Chlntis, Chetan
; Miller, Louis H.
; Peterson, David S.
; Su, Xin-zhaun
; Wellens, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knodbe Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th Floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/153,273
; FILING DATE: 21-May-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/09/210,288
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Fuller, Michael
; REGISTRATION NUMBER: 36,516
; REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1435 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEetical: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum

```

```

; SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-10-153-273-4

```

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Query Match 13.4%; Score 304; DB 4; Length 1435;
Best Local Similarity 23.7%; Pred. No. 2.9e-16;
Matches 98; Conservative 55; Mismatches 124; Indels 136; Gaps 16;

```

```

Qy      24 QKVHDEVHGEAKNY---VSELKGSLSASIIGETAFYVKSQTE-SKY-----TELIEA 73
Db      387 QKVPEK---NAENVLIIKISEKNDKAKVSLI-----NNDAAYSKXCDCDKHTTLVKS 436
Qy      74 --NSKNPPCKKDGKANDVDRFSV---KEAQYNNKKKCSNG------TCAPPRRLH 121
Db      437 VLANGNDNTIKERKREHIDLDPSFKGCDKNSVDVTQKWECKNPYILSTQDVCPVPRQEL 496
Qy      122 CNKQFPMNNSDSSKAGHDLLAEVCMAYGESIKTHIPTYDSKYGSGSPMCTMLARS 181
Db      497 CLGNIDRIYDKNLMIMEHLA-----IAIESRLKRRYKNKDK------EVCKIINKT 546
Qy      182 PADIGDIIRGRDLVGNKKKKKQNGKETEREKLBOKLKIFPKIHNLKDKAQRKNGDE 241
Db      547 PADIRDIIGTDTY-----NDLSNRKLVGKINTNSKYVIRANKKNDKL----- 588
Qy      242 DPNFYKLRBEDWWTANRETVGAMTCSKELDNSSYFRATCNDTGGPQTHNKKCRDXDKG 301
Db      589 -----FRDEWMAKYIKKQVNMVLI-----SWVFK-----DKTVCKEDDI 620
Qy      302 ANAGKPYAGDGVTVIPTFYDYPQYLRWFEWMAEDFCRKKKKLLENLEKQCRGKXDSDE 361
Db      621 EN-----IPQFPRWFEWMDDFCODTKMIETLKYCKECPCED 660
Qy      362 YRCSRGYDCEQTIISRKGRMGKGTDCFPAGSYENMTDNRKQFQKQK 414
Db      661 -----NCKSKNSYKEMISKKEEYNQAK 685

```

```

RESULT 9
US-10-293-913A-4
; Sequence 4, Application US/10293913A
; Publication No. US20040022805A1
; GENERAL INFORMATION:
; APPLICANT: Natum, David
; APPLICANT: Liang, Hong
; APPLICANT: Fuhrmann, Steve
; APPLICANT: Sim, B. Kim Lee
; TITLE OF INVENTION: Synthetic Genes for Malarial Proteins and Methods of Use
; FILE REFERENCE: 05213-0464 (43170-280206)
; CURRENT APPLICATION NUMBER: US/10/293,913A
; PRIOR FILING DATE: 2002-11-12
; PRIOR APPLICATION NUMBER: US 60/345,051
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: Patentin version 3.2
; SEQ ID NO 4
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic EBA-175 RII
US-10-293-913A-4

```

```

Query Match 12.9%; Score 293; DB 4; Length 616;
Best Local Similarity 23.8%; Pred. No. 8.4e-16;
Matches 99; Conservative 54; Mismatches 121; Indels 142; Gaps 17;

```

```

Qy      24 QKVHDEVHGEAKNY---VSELKGSLSASIIGETAFYVKSQTE-SKY-----TELIEA 73
Db      243 QKVPEK---NAENVLIIKISEKNDKAKVSLI-----NNDAAYSKXCDCDKHTTLVKS 292
Qy      74 --NSKNPPCKKDGKANDVDRFSVKEQAGYD-----NKKAKCSNGTCAFPRR 118
Db      293 VLANGNDNTIKERKREHIDLDPS---KFGCDKNSVDVTQKWECKKPYKLSTQDVCPVPRR 349

```

```

Query Match 12.8%; Score 292; DB 4; Length 616;
Best Local Similarity 23.8%; Pred. No. 1e-15;
Matches 99; Conservative 54; Mismatches 121; Indels 142; Gaps 17.

QY QKVHDEVGEAKNY--VSELKGSILSLAIIAETAFYVSMOTE-SKY-----TELIEA 73
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db QKVPK--NMENYI KISSENKDAKSVLL-----NNGDAEISKVCDCKHTTLTKS 292
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 74 --NSKRNPKCKDKGNDVDRFSVKEOAGY-----NKKMKCSNMGTCAPRR 118
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db VLANGNDNTIKERGERHIDLDDFS--KFGCDKNSVDNTKVMCECKPKYKSLTDYVCVPRR 349
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 119 LHLCKNPFPMNMSNDSRSKAKHDLLEAECMAAYBGBSITKTHPKYDSKYPGSDPFMCMTL 178
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db CELCGNIDRIDYDKLMLKEHIL--IATYSRILRKRYKNRDK--EVCCKI 399
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 179 ARSPADIGIIRGRDLYLGNKKKKONGKETEREKLEOKLKEPKLIHDLKDEAKQRYN 238
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 400 NKTFFADIRIIIGTDIY-----NDLSRKLYGKINTNSNVYHR--KQNDKLF- 445
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 239 GDEDPNFYKLREDMWTANRETYWGAMTCSKELDNSSYFPAATCNDTGGQSPSQTINKCRDCK 298
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 446 -----RDEMVKIKQDVNMYI-----SWVFK-----DKTVCKE 473
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

QY 299 DKGAAGAKPKAAGDGVTVIPPTFDVPPQYLIRWPFEEBAEPCKKKKKLENLKQCRGDK 358
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 474 DDLEN-----IPQFRPFSEGDGYCODKTKMLETLLVBECKEPC 513
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

```

```

RESULT 12
US-10-153-273-6
; Sequence 6, Application US/10153273
; Publication NO. US20020169305A1
; GENERAL INFORMATION:
;
; APPLICANT:  Slim, Kim L.
;              Chitnis, Chetan
;              Miller, Louis H.
;              Peterson, David S.
;              Su, Xin-zhaun
;              Wellens, Thomas E.
;
; TITLE OF INVENTION:  BINDING DOMAINS FROM PLASMODIUM VIVAX
;                        AND PLASMODIUM FALCIPARUM ERYTHROCYTE
;                        BINDING PROTEINS

```

NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10-153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 6:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 749 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHEICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
US-10-153-273-6

Query Match 12.5%; Score 285.5; DB 4; Length 749;  
Best Local Similarity 24.1%; Pred. No. 4.6e-15;  
Matches 89; Conservative 47; Mismatches 108; Indels 125; Gaps 16;

QY 69 ELIA-----NSKNPCKKGGKNDVDFSVYEQAGYDNKKMKC--SNGMT-----C 113  
DB 81 ELVSAAKYNLKAAPAKSPRIYKSKHEHSSVFGCKTKISKYKCKKNCYSNNKVTKPGVC 140  
QY 114 APPRLHLC-NKNPPNMSNDSSKAKHDLAELVCAAKYEGESIKTHYPKYDSKYPGSD 172  
DB 141 GPPRRQQLCGYIFLINDGNEGLKDH-----INKANYTEAMHLKEKY-----ENAGD- 189  
QY 173 PMCTMLARSPADIDIIIRGDLVYGNKKKKKONGKETEREKLQKLEIFKKIHNLKDK 232  
DB 190 KICNAILIGSYADIDIGVGLDW-----RDINTNKLSEKFKIF-----MGCGN 233  
QY 233 AQKRYNGDEDPNFKYLRDMWTANRETYWGMATCSKEIDNSSYPRATCNDTGQSPQTHN 292  
DB 234 SRKKQNDNNE-----RNKWEKORNLWSSMV--KHIPKCK--TC-----KRN 273  
QY 293 KCRCDKXGANAAGPKAGDGVITVPTVFYVPOYLWFEEMADPCKKKKKLEMLEKQ 352  
DB 274 N-----FEKIPQFLWLEKMGDPCEMGTEVAKOLEKI 306  
QY 353 CRGDKSDERYCNRNGYDCEQITSRKGYVMGKCTDCFPACSYENWIDN-----Q 405  
DB 307 CENKNCSEK-----KCNACSSYEMKIKERKNEYNLQ 338  
QY 406 RKQFDKQKK 414  
DB 339 SKKFDSDCK 347

RESULT 13  
US-09-924-154-15  
Sequence 15, Application US/09924154  
Patent No. US20020127241A1  
GENERAL INFORMATION:  
APPLICANT: Natum, David L.  
APPLICANT: Sim, Kim L.  
TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use  
FILE REFERENCE: 05213-0465 43170-262105  
CURRENT APPLICATION NUMBER: US/09/924,154  
CURRENT FILING DATE: 2001-08-07  
PRIOR APPLICATION NUMBER: US 60/223,525  
PRIOR FILING DATE: 2000-08-07  
NUMBER OF SEQ ID NOS: 17  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 15  
LENGTH: 1086  
TYPE: PRT  
ORGANISM: Mammalian  
US-09-924-154-15

Query Match 12.5%; Score 285.5; DB 3; Length 1086;  
Best Local Similarity 24.1%; Pred. No. 7.5e-15;  
Matches 89; Conservative 47; Mismatches 108; Indels 125; Gaps 16;

QY 69 ELIA-----NSKNPCKKGGKNDVDFSVYEQAGYDNKKMKC--SNGMT-----C 113  
DB 323 ELVSAAKYNLKAAPAKSPRIYKSKHEHSSVFGCKTKISKYKCKKNCYSNNKVTKPGVC 382  
QY 114 APPRLHLC-NKNPPNMSNDSSKAKHDLAELVCAAKYEGESIKTHYPKYDSKYPGSD 172  
DB 383 GPPRRQQLCGYIFLINDGNEGLKDH-----INKANYTEAMHLKEKY-----ENAGD- 431  
QY 173 PMCTMLARSPADIDIIIRGDLVYGNKKKKKONGKETEREKLQKLEIFKKIHNLKDK 232  
DB 432 KICNAILIGSYADIDIGVGLDW-----RDINTNKLSEKFKIF-----MGCGN 475  
QY 233 AQKRYNGDEDPNFKYLRDMWTANRETYWGMATCSKEIDNSSYPRATCNDTGQSPQTHN 292  
DB 476 SRKKQNDNNE-----RNKWEKORNLWSSMV--KHIPKCK--TC-----KRN 515  
QY 293 KCRCDKXGANAAGPKAGDGVITVPTVFYVPOYLWFEEMADPCKKKKKLEMLEKQ 352  
DB 516 N-----FEKIPQFLWLEKMGDPCEMGTEVAKOLEKI 548  
QY 353 CRGDKSDERYCNRNGYDCEQITSRKGYVMGKCTDCFPACSYENWIDN-----Q 405  
DB 549 CENKNCSEK-----KCNACSSYEMKIKERKNEYNLQ 580  
QY 406 RKQFDKQKK 414  
DB 581 SKKFDSDCK 589

RESULT 14  
US-10-153-273-8  
Sequence 8, Application US/10153273  
Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Welleme, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California



```

COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
  APPLICATION NUMBER: US/10/153,273
  FILING DATE: 21-May-2002
  CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
  APPLICATION NUMBER: US/09/210,288
  FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
  NAME: Fuller, Michael
  REGISTRATION NUMBER: 36,516
  REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
TELECOMMUNICATION INFORMATION:
  TELEPHONE: (619) 235-8550
  TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
  LENGTH: 921 amino acids
  TYPE: amino acid
  STRANDEDNESS: single
  TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-10-153-273-8

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```

Query Match      10.6%; Score 241; DB 4; Length 921;
Best Local Similarity 26.1%; Pred. No. 3.5e-11;
Matches 84; Conservative 43; Mismatches 119; Indels 76; Gaps 17;

QY 101 DNKKKCSNGMTCAFRRLHLCNKNFPMNNSNDSSKAGHDLAEVCAKYEGBESIKTHY 160
DB 427 DESKIMQGHGACIPPRQKCLHLEKIMTN-TLEKKAFLK--CAAA--ETFLWQNY 481
QY 161 PK-----YDSKYPGSDFP--MCTMLARSPADIGDIIRGDLVYLNKKKKKQNGKETER 210
DB 482 KKDKNAGNABDEDEKLKGGIIPEDFRQMFYTFADYDLCIGTDI-----SSKKDTSKV-- 535
QY 211 EKLDEKLEIKFKITDNLKDKAQRVNGDEDPNPFYKLRBDMTANRETWGANMTCSKEL 270
DB 536 GYVKNIDVDFYKINSI-----RY-----RKSWMETNGPVIWEGMLCALSY 577
QY 271 DNSSYFRATCNDTGGPSQTHNKCRCDDKGANAGKPRAGDGVTVITPFYDVPQYLRLM 330
DB 578 DTS-----LNNVN---PETHKL--TEGNNNEKYIFGSDSTLTSKFSERQQLRLM 624
QY 331 FEEMADPFCRKKKKLEMLEKQCRGKDKSDSEYRCSNGYDCEQTISRKKYRMKGGCTD 390
DB 625 LTEMENFCKEQKKEKVKYLAKK-----DCD--VDGDKCN--GK--CVA 664
QY 391 CFFACGSYEN---WIDNRKQ 408
DB 665 CKDCKQYHSMIGIWDNYKQ 686

```

RESULT 15  
US-10-153-273-2  
Sequence 2, Application US/10153273  
Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Slim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun

```

Wellens, Thomas E.
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
  ADDRESSEE: Knobbe Martens Olson & Bear
  STREET: 620 Newport Center Drive 16th Floor
  CITY: Newport Beach
  STATE: California
  COUNTRY: US
  ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
  APPLICATION NUMBER: US/10/153,273
  FILING DATE: 21-May-2002
  CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
  APPLICATION NUMBER: US/09/210,288
  FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
  NAME: Fuller, Michael
  REGISTRATION NUMBER: 36,516
  REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
TELECOMMUNICATION INFORMATION:
  TELEPHONE: (619) 235-8550
  TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
  LENGTH: 1115 amino acids
  TYPE: amino acid
  STRANDEDNESS: single
  TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium vivax
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-153-273-2

```

```

Query Match      10.5%; Score 239; DB 4; Length 1115;
Best Local Similarity 21.4%; Pred. No. 6.6e-11;
Matches 94; Conservative 59; Mismatches 153; Indels 134; Gaps 17;

QY 5 GGSGGTODEDAKHVLDLDFGQVHDEHGEAK--NYVELGSLSLASIGLGTAFVSKWQ 62
DB 157 GGNYSMEGKDG-----GDKTGEKDGSEHKTDSKTDNGKANLVMLDIETSSNGQPAQ 209
QY 63 TESRYTELI--EANSKRNPKCKDGKGDVD-----RFSYKBOAGYDNKK 104
DB 210 TLQVLEFVYGHGNSKRN--SSNGNPNYDIDHKTTISALINHAFLQNTWKNCKNYRKR 268
QY 105 MK-----CSNGM--TCAPFRRLHLCNKNFPMNNSNDSSAKHD-----LAEVCAKYE 152
DB 269 RERDMDCNTKKDVCIPRRYQLCKMKELTNLVNNTDTFHRITPRKLYLKKKLYYDAVE 328
QY 153 GE-SIKTHYPKYDSEYRCSNGYDCEQTISRKKYRMKGGCTD 210
DB 329 GDLILKLNRYRN-----KDF--CKDIRWSLGDGDIIMGTDMGIGISK----- 371
QY 211 EKLDEKLEIKFKITDNLKDKAQRVNGDEDPNPFYKLRBDMTANRETWGANMTCSKEL 270
DB 372 -VVENNRISFG-----TDEKAQR-----RQGMNBSKQGIATAMYSYVK 412
QY 271 DNSSYFRATCNDTGGPSQTHNKCRCDDKGANAGKPRAGDGVTVITPFYDVPQYLRLM 330
DB 413 RLKGNFWICK-----LNVAVNIIEPQILYRW 437
QY 331 FEEMADPFCRKKKKLEMLEKQCRGKDKSDSEYRCSNGYDCEQTISRKKYRMKGGCTD 390

```

Db	438	IREWGRDYVSELPTEVQKLKEXCDGKINYTDKXCK	-----VPP 476
Qy	391	CFPAGSYENMIDNRKQED	410
Db	477	CONACKSYDQWITRRKNQMD	496

Search completed: December 29, 2005, 23:40:11  
Job time : 47.2601 secs

This Page Blank (uspto)

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: December 29, 2005, 23:15:22 ; Search time 2.64597 Seconds  
(without alignments)  
1174.559 Million cell updates/sec

Title: US-09-508-967-1\_COPY\_1\_415  
Perfect score: 2276  
Sequence: 1 MATSGSGSGGTDEDAKHVLD.....GSYENWIDNRKQPKQKKY 415

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 57103 seqs, 7488799 residues

Total number of hits satisfying chosen parameters: 57103

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

- Published Applications AA New:\*
- 1: /cgm2\_6/ptodata/2/pubpaa/US06\_NEM\_PUB.pep.\*
  - 2: /cgm2\_6/ptodata/2/pubpaa/US07\_NEM\_PUB.pep.\*
  - 3: /cgm2\_6/ptodata/2/pubpaa/US07\_NEM\_PUB.pep.\*
  - 4: /cgm2\_6/ptodata/2/pubpaa/PCT\_NEM\_PUB.pep.\*
  - 5: /cgm2\_6/ptodata/2/pubpaa/US09\_NEM\_PUB.pep.\*
  - 6: /cgm2\_6/ptodata/2/pubpaa/US10\_NEM\_PUB.pep.\*
  - 7: /cgm2\_6/ptodata/2/pubpaa/US11\_NEM\_PUB.pep.\*
  - 8: /cgm2\_6/ptodata/2/pubpaa/US60\_NEM\_PUB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	111.5	4.9	454	US-11-089-551A-35	Sequence 35, Appli
2	102.5	4.5	1147	US-10-615-668-5	Sequence 5, Appli
3	101	4.4	1142	US-11-109-156-22	Sequence 22, Appli
4	99.5	4.4	1976	US-11-069-834-52	Sequence 52, Appli
5	98.5	4.3	646	US-10-491-096-190	Sequence 190, App
6	95.5	4.2	1976	US-11-069-834-54	Sequence 54, Appli
7	93.5	4.1	835	US-10-501-039-4	Sequence 4, Appli
8	93.5	4.1	1238	US-11-078-735-21	Sequence 21, Appli
9	93.5	4.1	2897	US-10-499-715-2	Sequence 2, Appli
10	92	4.0	785	US-11-109-157A-6	Sequence 6, Appli
11	92	4.0	1076	US-11-109-157A-5	Sequence 5, Appli
12	92	4.0	1907	US-11-039-398-25	Sequence 25, Appli
13	91.5	4.0	989	US-10-793-626-2594	Sequence 2594, Ap
14	90.5	4.0	567	US-10-995-561-764	Sequence 764, App
15	90.5	4.0	619	US-10-485-517-374	Sequence 374, App
16	90.5	4.0	791	US-11-056-621-4	Sequence 4, Appli
17	90.5	4.0	810	US-10-995-561-761	Sequence 761, App
18	90.5	4.0	810	US-10-220-824-2	Sequence 2, Appli
19	89.5	3.9	436	US-10-131-826A-404	Sequence 404, App
20	89.5	3.9	948	US-10-523-872-14	Sequence 14, Appli
21	88.5	3.9	963	US-10-467-962B-2	Sequence 2, Appli
22	88	3.9	477	US-11-089-551A-34	Sequence 34, Appli
23	88	3.9	636	US-10-485-517-170	Sequence 170, App
24	87.5	3.8	558	US-10-512-109-11	Sequence 11, Appli
25	87.5	3.8	710	US-11-045-802-2	Sequence 2, Appli

26	87.5	3.8	710	US-11-045-802-19	Sequence 19, Appli
27	87.5	3.8	710	US-11-045-802-20	Sequence 20, Appli
28	87.5	3.8	710	US-11-045-802-21	Sequence 21, Appli
29	87.5	3.8	710	US-11-045-802-22	Sequence 22, Appli
30	87.5	3.8	710	US-11-045-802-24	Sequence 24, Appli
31	87.5	3.8	812	US-11-010-874-1	Sequence 1, Appli
32	87	3.8	710	US-11-045-802-23	Sequence 23, Appli
33	87	3.8	1960	US-11-069-834-50	Sequence 50, Appli
34	85.5	3.8	369	US-11-078-735-38	Sequence 38, Appli
35	85.5	3.8	484	US-11-078-735-43	Sequence 43, Appli
36	85.5	3.8	531	US-11-060-914-4	Sequence 4, Appli
37	85.5	3.8	723	US-10-131-826A-346	Sequence 346, App
38	85.5	3.8	723	US-11-078-735-17	Sequence 17, Appli
39	85.5	3.8	763	US-10-821-234-1619	Sequence 1619, Ap
40	85	3.7	557	US-10-512-109-9	Sequence 9, Appli
41	85	3.7	793	US-11-060-914-2	Sequence 2, Appli
42	84.5	3.7	603	US-10-793-626-1684	Sequence 1684, App
43	84.5	3.7	693	US-10-873-528-185	Sequence 185, App
44	84.5	3.7	1218	US-11-078-735-20	Sequence 20, Appli
45	83	3.6	399	US-10-510-386-150	Sequence 150, App

## ALIGNMENTS

RESULT 1  
US-11-089-551A-35  
; Sequence 35, Application US/11089551A  
; Publication No. US20050266242A1  
; GENERAL INFORMATION:  
; APPLICANT: Lindquist et al.  
; TITLE OF INVENTION: ELECTRICAL CONDUCTORS AND DEVICES FROM PRION-LIKE PROTEINS  
; FILE REFERENCE: 30554/40025A  
; CURRENT FILING DATE: 2005-03-24  
; PRIOR APPLICATION NUMBER: US/11/089, 551A  
; PRIOR FILING DATE: 2004-03-31  
; NUMBER OF SEQ ID NOS: 65  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 35  
; LENGTH: 454  
; TYPE: PRT  
; ORGANISM: Saccharomyces cerevisiae  
US-11-089-551A-35

Query Match 4.9%; Score 111.5; DB 7; Length 454;  
Best Local Similarity 21.2%; Pred. No. 0.072;  
Matches 86; Conservative 40; Mismatches 147; Indels 133; Gaps 20;

QY	35	KNY	---VSELKGSLSLASIIIGETAFTVKSQTESKYTELEIANGSKRNPKCKDGKGVDR	91	
DB	16	KGYSYKMSNSGSSGSDVSGSTNSNPAKNTNYKKT	-----NKK-----YKATIDANOTYK	67	
QY	92	FS	-----VKEQAGYDNKKMKCSNGMTCAFRRLHLCKNKFPMNNSN	-----DSSKAKIDL	141
DB	68	YSNDKSKRSANSNDKDC	-----RTNKMOTMYDKSKYTNCDHAKSSHM	115	
QY	142	LAECVMAKTEGESI-KTHYPKYDSKYPGSDFPYCMLARSFADIGIIRGRDLY	-----L	196	
DB	116	-----KYKGRSVDKDMKMDSSVYAS	-----KNNSHYST	-----RTNMRMDVYTKAM	160
QY	197	GNNKKKQNGKTEHEKLEQKLEIFKKIHDLKDKKQKRYNGGDDPFYFLREDDWYAN	256		
DB	161	ANKKK-----SPTSTWKNKNSHVSIN	-----NDKSKTKMTNDSDDDDNNVNNNNNNNN	210	
QY	257	RETWGAMTCSKEIDNSYFRATCNDTGQSPSQTIN	-----KCRCDKGCANAGK	306	
DB	211	-----NKNDNNNDNNNDTSMNNNNNNNNRKTNNNNRNRDMTKKCTDWDNRKNNNK	260		
QY	307	PKAGDGVTVIPTYFDVYPPYLRFWEAEADPFCKKKKLENLKCKCKGKSKSBEYRCS	366		
DB	261	-----NDMAERDNNKNNVNNR	-----NHKSS	-----CR	284

QY 367 RAGYDCEQTI-----SRKGYRMGKCTDCEPAGSYENMIDNORK 407  
 Db 285 RDGYSANNAVSTHASNKNVDMNN-----DTYGNKTDYMK 321

# RESULT 2

US-10-615-668-5  
 ; Sequence 5, Application US/10615668  
 ; Publication No. US20050276819A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Covacci, Antonello  
 ; APPLICANT: Bugnoli, Massimo  
 ; APPLICANT: Telford, John  
 ; APPLICANT: Macchia, Giovanni  
 ; APPLICANT: Rapuoli, Rino  
 ; TITLE OF INVENTION: Helicobacter pylori CAI Antigen Polymucleotides  
 ; FILE REFERENCE: CHIR0337  
 ; CURRENT APPLICATION NUMBER: US/10/615,668  
 ; CURRENT FILING DATE: 2003-07-08  
 ; PRIOR APPLICATION NUMBER: 08/471,491  
 ; PRIOR FILING DATE: 1995-06-06  
 ; PRIOR APPLICATION NUMBER: 08/256,848  
 ; PRIOR FILING DATE: 1994-10-21  
 ; PRIOR APPLICATION NUMBER: 09/410,835  
 ; PRIOR FILING DATE: 1999-10-01  
 ; NUMBER OF SEQ ID NOS: 24  
 ; SOFTWARE: PatentIn version 3.2  
 ; SEQ ID NO 5  
 ; LENGTH: 1147  
 ; TYPE: PRT  
 ; ORGANISM: Helicobacter pylori  
 US-10-615-668-5

Query Match 4.5%; Score 102.5; DB 6; Length 1147;  
 Best Local Similarity 20.4%; Pred. No. 1.2; Indels 119; Gaps 23;  
 Matches 94; Conservative 69; Mismatches 178;

QY 1 MATSGSGGTODEDAKHVLDFFGQKVDHVEHGAKNVSELSISLASIIGETAFTYKS 60  
 Db 457 LITERGNG-----DLSYTKDYGKKA-DKALDREKNVT--LOGSLKHGVM----FVYYS 504  
 QY 61 MOTESKYTELIEANSKRNPKCKGKNDVDFPSVKEQAGYDNK---KMKCSNGMTCAPF 116  
 Db 505 ---NFKYT-----NASKPNKGVGTNGVSHLEV---GF-NKVAIFNLPDLNLAITSF 551  
 QY 117 RLHLCKN-NFPNNNSNDSSKAKHDLAEVCMAKYBEGSITHTHPYXDSKVPQSGDFPMC 175  
 Db 552 VARNLEDKLTTKGLSPQEAANKLIKDFLS--NKELVGKTLNFKRAVADAKVTGN---Y 604  
 QY 176 TWLASFADIGDIIGRDLYLGNKKKKQNGKTEREKLQKLLK-----EIF----- 221  
 Db 605 DEVKKAQKDLSEKSLKREHLEKEVEKLESKSGNKNKHEAKQAQANSQDEIFALINKKAN 664  
 QY 222 -----KKIHDLK--DYEAQRVNGDEDPNFYKLRBDW----- 252  
 Db 665 RDAIAIAYQNLTGKIRELSDKLEBNVKLIKDFKSPDEFKNG-KKQDFSKAEFTLKALK 723  
 QY 253 -----WTARETYWGMATSGSKELDSSYFRATNDTGQSPSOTHNCR----- 295  
 Db 724 GSVKDLGINPEWISKVENLNAALNFKNGKNKDFSRVT-----QAKSDLENSVKVITINQ 778  
 QY 296 ---CDKDKANAGKPKA-GGDVTVIVPTVDFYPOYLRFPEMAEDFCRKKKKLENLLEKQ 352  
 Db 779 KYTDKVDNINQAVSAKATGD-----FSRYEQALADLKNFSKQQLAQQAQKESL--- 828  
 QY 353 CRGDKSDERYRCSR--NGYDCEQTI SRKGYRMGKCTD 390  
 Db 829 -NARKKSEIYGSVKNGVNGTLVNGLSQAEATTLISNFSGD 867

RESULT 3  
 US-11-109-156-22  
 ; Sequence 22, Application US/11109156

; Publication No. US20050250144A1

; GENERAL INFORMATION:  
 ; APPLICANT: Toehio Ota  
 ; APPLICANT: Takao Isegaki  
 ; APPLICANT: Tetsuo Nishikawa  
 ; APPLICANT: Koji Hayashi  
 ; APPLICANT: Kaoru Otsuka  
 ; APPLICANT: Jun-ichi Yamamoto  
 ; APPLICANT: Shizuko Ishii  
 ; APPLICANT: Tomoyasu Sugiyama  
 ; APPLICANT: Ai Wakamatsu  
 ; APPLICANT: Keiichi Nagai  
 ; APPLICANT: Tetsuji Otsuki  
 ; APPLICANT: Shin-ichi Funahashi  
 ; APPLICANT: Chiaki Senoo  
 ; APPLICANT: Jun-ichi Nezu  
 ; TITLE OF INVENTION: NOVEL GENES ENCODING PROTEIN KINASE/PROTEIN  
 ; FILE REFERENCE: PHOSPHATASE  
 ; CURRENT APPLICATION NUMBER: US/11/109,156  
 ; CURRENT FILING DATE: 2005-04-19  
 ; PRIOR APPLICATION NUMBER: US/10/060,065  
 ; PRIOR FILING DATE: 2002-01-29  
 ; PRIOR APPLICATION NUMBER: PCT/JP00/05061  
 ; PRIOR FILING DATE: 2000-07-28  
 ; PRIOR APPLICATION NUMBER: US 60/159,590  
 ; PRIOR FILING DATE: 1999-10-18  
 ; PRIOR APPLICATION NUMBER: US 60/183,322  
 ; PRIOR FILING DATE: 2000-02-17  
 ; PRIOR APPLICATION NUMBER: JP 11-248036  
 ; PRIOR FILING DATE: 1999-07-29  
 ; PRIOR APPLICATION NUMBER: JP 2000-118776  
 ; PRIOR FILING DATE: 2000-01-11  
 ; PRIOR APPLICATION NUMBER: JP 2000-183767  
 ; PRIOR FILING DATE: 2000-05-02  
 ; PRIOR APPLICATION NUMBER: JP 2000-241899  
 ; PRIOR FILING DATE: 2000-06-09  
 ; NUMBER OF SEQ ID NOS: 43  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 22  
 ; LENGTH: 1142  
 ; TYPE: PRT  
 ; ORGANISM: Homo sapiens  
 US-11-109-156-22

Query Match 4.4%; Score 101; DB 7; Length 1142;  
 Best Local Similarity 22.9%; Pred. No. 1.6; Indels 158; Gaps 25;  
 Matches 81; Conservative 40; Mismatches 74;

QY 102 NKNKCSNGMTCAPIFRRLHLCN-----KNFPNNNSNDSSKAKHDLAEVCMAAKYRG-- 153  
 Db 214 NKSIRQNLTL-----KMRINNVPKDFLKEFPNNNTICDSSVSTHDL-----KVKYLA TL 262  
 QY 154 ESITHTYPKIDSKTPGSGDFPCTMLARSFA-----DGGDIIRGRDLYLGK-----K 200  
 Db 263 ETLTKHY-----GAEIFETSMILLSSBNEMWFMHSNCGVNLYYEVMWYTGVLGIQWR 314  
 QY 201 KKQNGKTEREKLQKKEIFKIKHDLKDKQAQRYNGDEDPNFYKLRBDWMTAN----- 256  
 Db 315 HKPWNVSVEKKE--NKLKR--KLEEN--KQKK-----DEKQ--KIREEMNFSFPE 359  
 QY 257 -----RETVGAMTSGKELDN-----SSYFRAT-----CNDT 283  
 Db 360 ITHIVIKESV--VSINKQ-DNKQWELKLSHEBALFVSLVDGYFRLTDAHHYLCIDV 415  
 QY 284 G-----QGPSOTH--NKCRCDKKGANAGKPKAGDGDVTVIVPTVDFYPOYL 328  
 Db 416 APPLIVHNIGQCHGPICTEYAINKLR--QEGSEBGW-----YV---L 453  
 QY 329 RPFEMAEDF-----CRKKKKKLENLLEKQCR-----GKDKS 359  
 Db 454 RMS---CTDFNINMTYTCFEKSSQVQQAQKQKFNFOLEVOGKGYSLHGSIRS 503

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RESULT 4
US-11-069-834-52
; Sequence 52, Application US/11069834
; Publication No. US20050276811A1
; GENERAL INFORMATION:
; APPLICANT: CARROLL, MICHAEL C.
; APPLICANT: MOORE JR., FRANCIS D.
; APPLICANT: HECHTMAN, HERBERT B.
; TITLE OF INVENTION: NATURAL IGM ANTIBODIES AND INHIBITORS THEREOF
; FILE REFERENCE: CRA-002.01
; CURRENT APPLICATION NUMBER: US/11/069,834
; PRIOR FILING DATE: 2005-03-01
; PRIOR APPLICATION NUMBER: 60/588,648
; PRIOR FILING DATE: 2004-07-16
; PRIOR APPLICATION NUMBER: 60/549,123
; PRIOR FILING DATE: 2004-03-01
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 52
; LENGTH: 1976
; TYPE: PRT
; ORGANISM: Mus musculus
US-11-069-834-52

Query Match          4.4%; Score 99.5; DB 7; Length 1976;
Best Local Similarity 17.1%; Pred. No. 4; Indels 57; Gaps 8;
Matches 54; Conservative 62; Mismatches 143;

QY 11 QDEDAKHLDFGCGVHDEHGEAKNYVELKSLSLASIIIGETAFVKSQTESKYTEL 70
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 991 EDQSKPIFKER-KLMERIRAECSQLAEBEBKAKNLAKINKEQVMISDEBRKKEK 1048
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 71 IEANSKRNPKCKDQKNDVDRFSYKEQAGYNNKKKCS-----NGMTCAPPRILHLCK 124
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 1049 TROSELEKARKLDGGSTTDLQDQIAELQAEVDELKQVLTKKEBELQGA-----LARG 1099
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 125 NFPMMNSDSSKAKHDLAEVC-MAKYEAGESIKTHYKYSKYPGSDFPMTMLARSFA 183
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 1100 DDETLHKNNALVARELQAIAELOEDPESEKASRNKAEKOR-----L142
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 184 DIGDIIIRGRDVLGNKKKKKQKETEREKLQKLKEIFPKLIDNLKDEAKRYNGDEDP 243
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 1143 DLSELELTKLEBETDLDTTAAQDELTKRQOEVALKKALEDETRKNEHQ-----L113
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 244 NFYKLREDWMTANRETVGAMTCSKELDNSSYFPATCNDTQGSQTHNKKCRD-----K 298
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 1194 -IQMRQGHATALEB-----LSFQLBQAKRFKANEKKNQGLTDNKELEACEVKVLQ 1245
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 299 DKGANAGKPKAGDDV 314
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 1246 VKASEHRRKKLDQV 1261
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

RESULT 5
US-10-491-096-190
; Sequence 190, Application US/10491096
; Publication No. US20050267020A1
; GENERAL INFORMATION:
; APPLICANT: FAURE, OLIVIER
; APPLICANT: KOSMATOPOULOS, KONSTANTINOS
; TITLE OF INVENTION: POLYPEPTIDES DERIVED FROM INDUCIBLE HSP70 AND PHARMACEUTICAL
; FILE REFERENCE: 0508-1098
; CURRENT APPLICATION NUMBER: US/10/491,096
; PRIOR FILING DATE: 2004-03-29
; PRIOR APPLICATION NUMBER: PCT/EP02/10821
; PRIOR FILING DATE: 2002-09-26
; PRIOR APPLICATION NUMBER: FR 01402496.2
; PRIOR FILING DATE: 2001-09-27
; NUMBER OF SEQ ID NOS: 190
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 190

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; LENGTH: 646
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-491-096-190

Query Match          4.3%; Score 98.5; DB 6; Length 646;
Best Local Similarity 20.0%; Pred. No. 1.2;
Matches 106; Conservative 78; Mismatches 200; Indels 145; Gaps 25;

QY 14 DAKH-----VLDEFGQ-KVHBEVGEAKNYVELKSLSLASI-----LGET----- 54
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 86 DKHMPFVVDADGAPVQVEYKGETSYFEEVSSWVLTKMKIAEYLGKTYTNNAVYT 145
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 55 -AFTVSMQTESKYTEL-----EANSKRNPKCKDQKNDV 89
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 146 VPAIFNDSQQAQATDAGTIGLAVTLRIINEPTAAIAIVGDKKYGAGARNVLIPLGGGT 205
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 90 D-----RFSYKEQAG-----YDNKKMKCSNGMTCAPPRILHLCKNFPNMNSN 132
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 206 DVSILITIEDGIFEVKSTAGDTHLGGEDFPDNRMV-----NHFAEPRKH-----KK 251
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 133 DSSKAKHDL--LAEVCMAKYEAGESIKTHYKYSKYPGSDFPMTMLARSFADI-GDII 189
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 252 DISENKCAVRLRTACERARKTSSSTQASIEIDSLVEGIDFYTSTRAR-FEELADL 310
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 190 RG-----RDLYLNKKKKKQK-----GKETEREKLQKLKEIF--KLIHNLKDEKA- 233
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 311 RGLTIDPVEKALRDAKL-DKSGIHIYLVGSGSTRIPKIQKLQDFPNKELEKINSINPDEAV 369
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 234 -----QKRYNGEDENP---FYKLREDWMTANRETVGAMTCSKELDNSSYFPATCNDT 283
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 370 AYGAAVQAALISGDKSENVDLLLDVTPLSLGIETAGVWTVLTKNTTITPKOTOTPT 429
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 284 GQGSQTHNKKRC-DKDKGANAGKPKAGDDVTVTFYFDVPRVLYLNFEEWA----- 335
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 430 TYSNQGVLIIQVYEGGRAMTKNNLKGKELTGIIPAPRGVPOIEVTFDIDANGILNVS 489
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 336 -----EBFCRKKKKGLENLEKQ-----RGKDSDBRYCSRN-----GYDC 372
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 490 AVDSKSGEKNTITTDNKGRLSKEDIEMVQEAERYAEDBKQDKYSSKGSLESYAPNM 549
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 373 EQTI---SRKGKVMGKCTDCCFPAGCSYENWIDN---ORKOPDKKK 414
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
DB 550 KATVEDKLGKIN-DEDKQILDKNEIINWLDKNQTAKEBEFEHQK 597
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

RESULT 6
US-11-069-834-54
; Sequence 54, Application US/11069834
; Publication No. US20050276811A1
; GENERAL INFORMATION:
; APPLICANT: CARROLL, MICHAEL C.
; APPLICANT: MOORE JR., FRANCIS D.
; APPLICANT: HECHTMAN, HERBERT B.
; TITLE OF INVENTION: NATURAL IGM ANTIBODIES AND INHIBITORS THEREOF
; FILE REFERENCE: CRA-002.01
; CURRENT APPLICATION NUMBER: US/11/069,834
; PRIOR FILING DATE: 2005-03-01
; PRIOR APPLICATION NUMBER: 60/588,648
; PRIOR FILING DATE: 2004-07-16
; PRIOR APPLICATION NUMBER: 60/549,123
; PRIOR FILING DATE: 2004-03-01
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 54
; LENGTH: 1976
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-069-834-54

Query Match          4.2%; Score 95.5; DB 7; Length 1976;
Best Local Similarity 16.8%; Pred. No. 8.4;
Matches 53; Conservative 63; Mismatches 143; Indels 57; Gaps 8;

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OY      11  ODEAKHVLDEGQVHVEHVEAGNANYVELKGSLSLISLIGETAFTVKSQTSKYEL  70
Db      991  EDONSKFTEK--KMEDRIAECSSQLABEEKANIKLTKNKDEWMSIDLEERIKEEK  1048
OY      71   IEANSKRNPCCKDGKNDVDPRFVSVEQAGYDNKKKCS-----NGMTCAEFRRLHLCNK  124
Db      1049  TRQLEAKAKRLDGETTLDLOQIAYELQAIQIDELKQLAKKEBELQGA-----LARG  1099
OY      125  NFPNNNSDSSKAKHDLIAEVC--MAKTEGESIKTHYPRYDSKYPGSDPMPCTMLARSFA  183
Db      1100  DDETLHKNNALKVAYELQAIQIAELQEDFESEKASHNKAQOKR-----  1142
OY      184  DIGDIIRBDLYGNKKKKQKQNGKETERERKLEBQKKEIKFKIHDNLKQKXQAKRYGDEDP  243
Db      1143  DLSELELELKTLEBETLDTLTTAAOQELFKRBEVEVALKALBEETKXNHEAQ-----  1193
OY      244  NPYLUREDMWTANRETTWGAMTCSKELNNSYFRATCNDDTQGGSPQTNKRCQD-----K  298
Db      1194  -IQDRQHHATLAE-----LSQLEQAKRFRANLEKRNQGLETTDNKELACEVYKVLQ  1245
OY      299  DKGANAGKPKAGDGDV  314
Db      1246  VKAESBHRKKLDAQV  1261

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RESULT 7
US-10-501-039-4
; Sequence 4, Application US/10501039
; Publication No. US20050244822A1
; GENERAL INFORMATION:
; APPLICANT: Tetsuro Kokubo, Masahiro Shirakawa, and Jeremy Robin Howard Tames
; TITLE OF INVENTION: Method of monitoring gene expression
; FILE REFERENCE: 4439-4023
; CURRENT APPLICATION NUMBER: US/10/501, 039
; CURRENT FILING DATE: 2004-07-08
; PRIOR APPLICATION NUMBER: JP P2002-002396
; PRIOR FILING DATE: 2002-01-09
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 835
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae
US-10-501-039-4

```

Query Match 4.1%; Score 93.5; DB 6; Length 835;

Best Local Similarity 19.24; Pred. No. 4.2;  
Matches 92; Conservative 59; Mismatches 142; Indels 187; Gaps 22;

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0Y      13 EDAPKAVLDEFGQVHDEHVEGMAKNVYSELKGSILASIIIGETAFYTKSMQTESKYTELLE 72
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      201 EDASFKSYKFW--VHDDNIMEVKARILRLPALVYASVENENDDPNDLESVDVRQPEAR 258
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
0Y      73 AN--SKRNPCKQKGN-----DVRFVSYEQAGYDNKK 104
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      259 INIGSKSNLSDDGNSNDQVEIGKSKSVIFPOSYDPTITLTYFDNDPFDL-----YNNEL 313
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
0Y      105 MKCSGMTCAPRRRLTLGNK--NPFNM-----NSNDSKAKDDLAEVCMAKARYEG 153
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      314 LKISG----APLRLRLMIGKLDKPIPLEKRTFMENTGNSPFEIRLQ--MKAKFLIN 367
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
0Y      154 BSIKTHYPYDSKYPGSDPFMCTMLARSPADIGDILRGDLYIGNKKKKONGKETEREKL 213
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      368 NFIKNDDPSYKN-----YLINLRERG--TYKEEL 395
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
0Y      214 EOKLEIFPKIHNDLKEAQ---KRYN-----GDE-----DPNFKLEDDMWMTAN 256
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      356 E-KLSRDPFNIGNFIYERKLQPLRLATYRTRIAQIIGDGSIRVTLIDSNTMYIRBDSLGN 454
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
0Y      257 RETVWGAMTCSKELDNSSYFRATCNDTGGQSPQSTENKCRCDKXKANAGKPE---KAQD- 311
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      455 RRI-----NPFNMWR-----DDIDSNIPNPLFLRAGEK 484
          ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

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Oy	312	-----GGVTVPTV-----	FDVVPQ-----YLR-----	329
Db	485	SKPEYSVMEIKVIQNDSQMPNYEMI	KDITNSHLVNEVPKFSYLTQV	ASLFGEDDKYAN 544
Oy	330	-----WEEWAADEPCRRKKCKLE-----	NLEKCRQMDSDDEVRYCSRRNGYD	EOGISRKRG 381
Db	545	ILFPWLLPDLDTDRKKPQEAAYEEKK	YTKQKSHDKIDNNRKLSKISV	PGKTKTEECQ 604

RESULT 8  
US-11-078-735-21

; sequence 21, Application US/110/8/35  
; Publication No. US20050261477A1  
; Publication No. US20050261477A1

; GENERAL INFORMATION:  
; APPLICANT: CHAMPION, BRIAN ROBERT

APPLICANT: LENNARD, ANDREW CHRISTOPHER  
APPLICANT: MCKENZIE, GRAHAME JAMES

APPLICANT: TUGAL, JAMARA  
TITLE OF INVENTION: PHARMACEUTICAL

FILE REFERENCE: 674525-2019

; CURRENT APPLICATION NUMBER: US/11/0  
 ; CURRENT FILING DATE: 2005-03-10  
 ;

PRIOR APPLICATION NUMBER: PCT/GB03/000000  
PRIOR FILING DATE: 2003-09-09  
PRIOR APPLICATION NUMBER: PCT/GB03/000000

PRIOR APPLICATION NUMBER: PCT/GB03/  
PRIOR FILING DATE: 2003-08-01  
PRIOR APPLICATION NUMBER: PCT/GB03/

PRIOR APPLICATION NUMBER: PCI/GB03/  
PRIOR FILING DATE: 2003-04-04  
PRIOR APPLICATION NUMBER: CD 030003

PRIOR APPLICATION NUMBER: GB 030023  
PRIOR FILING DATE: 2003-01-07  
PRIOR APPLICATION NUMBER: DGT/CP03/

PRIOR APPLICATION NUMBER: PCI/GB02/  
PRIOR FILING DATE: 2002-11-13  
PRIOR APPLICATION NUMBER: PCI/GB02/

PRIOR APPLICATION NUMBER: PCI/GB02/  
; PRIOR FILING DATE: 2002-11-13  
; PRIOR APPLICATION NUMBER: CD 0000001

PRIOR APPLICATION NUMBER: GB 022091  
PRIOR FILING DATE: 2002-09-10  
PRIOR APPLICATION NUMBER: GB 022091

; PRIOR APPLICATION NUMBER: GB 022091  
 ; PRIOR FILING DATE: 2002-09-10  
 ;

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; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn Ver. 3.3

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; SEQ ID NO 21  
; LENGTH: 1238  
mvnt - DDT
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; TYPE: PKI
; ORGANISM: Homo sapiens
; 11 070 727 31

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US-11-0/8-135-21

Query Match	4.1%;	Score
Best Local Similarity	19.9%;	Predicted
Waterbase 30	Concentration	35

Matches 39; Conservative 23;

QY 253 WIANKEI VMGAMI CSNELD-----  
| | | | | : | | : | :  
Db 261 WOCNCEETWCCI I CPYDI NYCCSH

DB 291 MUCNCBIMWGELCBNDENICGBI

296 CDKDNAGANAGKPCAGDGVII V F

DB 344 CENAEHACISNPLANGSCHBVS

```

QY      347 ENJE-----F
      : ::
DB      403 DOWDCFFCTCDBEOW/CATCOT DAN

```

DB 40Z DQVDFECLCFEWMVGHILCUBBA  
01 27C TDB KQKTPWCKCTND 380

QY 3/8 1SK-KGKVKMGKCID 390  
::: | | |  
Dh 463 YNDGRCGCGCTGCD 437

DU 40Z VANDLNGCCQNHGICW 7//

RESULT 9  
NO 10 400 215 0

US-10499-115-2  
; Sequence 2, Application US/10499715  
Publication No. US20050256717A1

! PUBLICATION NO. 0520050230/1/41



```

GENERAL INFORMATION:
APPLICANT: BENAYAHU, Dafna
TITLE OF INVENTION: CHROMATIN REMODELING PROTEIN AS A MARKER EXPRESSED BY STROMAL PRECURSOR CELLS AND METHODS OF USE THEREOF
FILE REFERENCE: BENAYAHU-1.1 PCT
CURRENT APPLICATION NUMBER: US/10/499,715
PRIORITY FILING DATE: 2004-06-21
NUMBER OF SEQ ID NOS: 34
SOFTWARE: PatentIn version 3.2
SEQ ID NO 2
LENGTH: 2897
TYPE: PRN
ORGANISM: Homo sapiens
US-10-499-715-2

Query Match          4.1%; Score 93.5; DB 6; Length 2897;
Best Local Similarity 19.7%; Pred.No.19;
Matches       72; Conservative   62; Mismatches    163; Indels     69; Gaps      13;

OY      EDAGKAVLDFEQKYHDEVEGAKNYVELSGSLASISLGSTAFVAKSMQTESKYTELIB 72
        ::::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::
DB      426 DNSSHIID-----HDLDRFTSHL---VTSPDMAQTOLQSARSWSSFSNHQH 472

OY      ANSKRNP-----KKDGK-----NDVPFYSYEQ---AGYNKKMKCSNGMTC 113
        :::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::
DB      473 LHDNRHLCLQGPPSSKSDSGSGLTYTKQLNTQVYMSEKKQRKKRYESESKEOKANRLISE 532

OY      114 APFRRLHCNKNFPMNSNDSSKAKHDLAEVCMAAYEGESITHTYPKYDSKPGRDPFP 173
        533 ALAKAKEGERENIIPRVMSPEMFPT----ASVEGEKEEKGGRMKSFKPKDKSKTXYT-- 584

OY      174 MCMLARSFADIGDIRRDLYLGNKKKKKGKETEPRKLKELFKIKIHDLKDKEA 233
        :::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::
DB      585 -CSEL-KERTKYGKI-----ITLGKKQKRKNSSDESIDAQMOPH-----TLKOODS 631

OY      234 QKRYVGDEDPFYKYLEDMWTANRETVMGTSCSKELDSSVFPAFCNDTGCGPSQ---- 289
        |||||::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::
DB      632 QKRSNNQIRKRTYAEDLEGKQSEBEVGSMTKKK--NSAPL-----PGEPLOLFVE 682

OY      290 ---THNKCRCDDKGANAGKPRAGDGVTVTPYFDVVPOYLRFMEWAEDEFCKRKXKL 346
        :::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::
DB      683 NPSEDAAIVDKILSRVTKKEISPQVMIDTFEEFFVKONYSYLCEWATEQLLKDKRI 742

OY      347 ENLEKQ 352
        :::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::
DB      743 QQKIKR 748

RESULT 10
US-11-109-157A--6
Sequence 6, Application US/11109157A
Publication No. US20050277175A1
GENERAL INFORMATION:
APPLICANT: Wyeth
TITLE OF INVENTION: TRUNCATED ADAMTS MOLECULES
FILE REFERENCE: 01997.030500.
CURRENT APPLICATION NUMBER: US/11/109,157A
CURRENT FILING DATE: 2005-04-18
PRIOR APPLICATION NUMBER: 60/562,685
PRIOR FILING DATE: 2004-04-15
NUMBER OF SEQ ID NOS: 44
SOFTWARE: PatentIn version 3.3
SEQ ID NO 6
LENGTH: 785
TYPE: PRN
ORGANISM: homo sapiens
US-11-109-157A--6

Query Match          4.0%; Score 92; DB 7; Length 785;
Best Local Similarity 20.2%; Pred.No.5.1;
Matches       92; Conservative   54; Mismatches    138; Indels    172; Gaps      26;
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Qy	11	ODEBAKHLDFBFGQVHVEHGEAKN--YVSELKGSLS-----LASTLGEATFAVKSQ	62
Db	363	RDEQCAH---FDGK-HFNINGLLPNVAWVRKYSILMKRCKLFCRVAAGTA-----	410
Qy	63	TESKYTELIEANSKKNPKCKDGKNDVDRFSVKEQAGYDNKKMKCSNGMTCAPFRRHLIC	122
Db	411	---YQGLRDRVLDGTPECGQD--TNDICVQGLCRQAGCD-----HVL	446
Qy	123	NKNFPNNNSNDSRKAKHDLAEVCMAAKYEGESIKTHYPKTDSKPGSDFPM-----	174
Db	447	N-----SKARBD-----KCGVCGGDNSSCKTAVGTNTVYGYNTVVRIPAGATN	491
Qy	175	CTMLARSPADIGD-----IIRG-----RDLYGNKKKKQNGKET--ER	210
Db	492	IDVRQHSFGSETDDNDNYALSSSKGEFLPILNPFVYTMAKREIRIGNAAVVEYSGSSTAYER	551
Qy	211	---EKLEQKLEIKFKKIHNI,KDKEAKRYNGDEPNFY-----KLREDMWTANRETVW	261
Db	552	INSTDRIBQELL-----LQVLSVGKLYNPVDRYSFNIPIEDKKPOOFYW--NSHGPM	600
Qy	262	GAMTCSKELNDSYFRATCNDTGGQPSQTHNKKCRDK-DKXANAGKPKAGGDVTVITYTY	320
Db	601	QA-CSKPCQGBERRKKVLC--TRESDDLTVSDRCRLRPGSHLITEPGCTQD-----	649
Qy	321	FDYVQVYLRWF-----EEMADFPCKKKKKLEN	348
Db	650	-----LRMHVASSECSAQCGLGYRTLDIYCAKYSRLDQKTEKTEVYDDGFCSSHXP--SN	701
Qy	349	LEKQCRGKDKSDERY-----CSRNGYDCEQTISRK	379
Db	702	REK-CSGECNTGWMRYSAMTECSKS---CDGQTORR	733
<p>RESULT 11</p> <p>US-11-109-157A-5</p> <p>Sequence 5, Application US/11109157A</p> <p>Publication No. US20050277175A1</p> <p>GENERAL INFORMATION:</p> <p>APPLICANT: Wyeth</p> <p>TITLE OF INVENTION: TRUNCATED ADAMTS MOLECULES</p> <p>FILE REFERENCE: 01997.030500.</p> <p>CURRENT APPLICATION NUMBER: US/11/109.157A</p> <p>CURRENT FILING DATE: 2005-04-18</p> <p>PRIOR APPLICATION NUMBER: 60/562,685</p> <p>PRIOR FILING DATE: 2004-04-15</p> <p>NUMBER OF SEQ ID NOS: 44</p> <p>SOFTWARE: PatentIn version 3.3</p> <p>SEQ ID NO 5</p> <p>LENGTH: 1076</p> <p>TYPE: PRT</p> <p>ORGANISM: homo sapiens</p> <p>US-11-109-157A-5</p>			
<p>Query Match 4.0%; Score 92; DB 7; Length 1076;</p> <p>Best Local Similarity 20.2%; Pred. No. 7.5;</p> <p>Matches 92; Conservative 54; Mismatches 138; Indels 172; Gaps 26</p>			
Qy	11	ODEBAKHLDFBFGQVHVEHGEAKN--YVSELKGSLS-----LASTLGEATFAVKSQ	62
Db	650	RDEQCAH---FDGK-HFNINGLLPNVAWVRKYSILMKRCKLFCRVAAGTA-----	697
Qy	63	TESKYTELIEANSKKNPKCKDGKNDVDRFSVKEQAGYDNKKMKCSNGMTCAPFRRHLIC	122
Db	698	---YQGLRDRVLDGTPECGQD--TNDICVQGLCRQAGCD-----HVL	733
Qy	123	NKNFPNNNSNDSRKAKHDLAEVCMAAKYEGESIKTHYPKTDSKPGSDFPM-----	174
Db	734	N-----SKARBD-----KCGVCGGDNSSCKTAVGTNTVYGYNTVVRIPAGATN	778
Qy	175	CTMLARSPADIGD-----IIRG-----RDLYGNKKKKQNGKET--ER	210
Db	779	IDVRQHSFGSETDDNDNYALSSSKGEFLPILNPFVYTMAKREIRIGNAAVVEYSGSSTAYER	838

QY 211 -----EKLBOQLKEIFPKKHIDNLKDKKAKRYNGDEDPNFY-----KLREDMWTANRETVW 261  
DB 839 INSTRIQIBELL-----LQVLSVGKLYNPVDRYSFNIPIEDKPOQFTW--NSHGPW 887  
QY 262 GAMTCKSLDSSSYFRATCNDTGGPSSQTHNKCPRDK-DKGMNAGKPRKAGGDVITVPTV 320  
DB 888 QA--CSKPCCGERRKRLVC--TRESQDLTVSDQRCRLPQPHITTEPCGTCD-----936  
QY 321 FDYVPOYLRF-----BEMADFCRKKKKLLEN 348  
DB 937 -----LRHVASRSECSAQCGLGYRTLIDYCAKYSRLDGTKEVDDGFCSSHPR-SN 988  
QY 349 LEKCRGKDKSDERY-----CSRNGYDCBOTISRK 379  
DB 989 REK-CSGECNTGGMWYSAMTECSKS---CDGGTORR 1020

RESULT 12  
US-11-039-398-25  
Sequence 25, Application US/11039398  
Publication No. US20050267297A1  
GENERAL INFORMATION:  
APPLICANT: Fiddle, Carl Johan  
APPLICANT: Turner, C. Alexander Jr.  
APPLICANT: Waite, D. Wade  
APPLICANT: Hilbun, Erin  
APPLICANT: Nepomichy, Boris  
APPLICANT: Hu, Yi  
TITLE OF INVENTION: Novel Human Proteases and  
TITLE OF INVENTION: Polynucleotides Encoding the Same  
FILE REFERENCE: LEX-0221-USA  
CURRENT APPLICATION NUMBER: US/11/039,398  
CURRENT FILING DATE: 2005-01-20  
PRIOR APPLICATION NUMBER: US/09/938,330  
PRIOR FILING DATE: 2001-08-22  
PRIOR APPLICATION NUMBER: US 60/227,104  
PRIOR FILING DATE: 2000-08-22  
PRIOR APPLICATION NUMBER: US 60/233,796  
PRIOR FILING DATE: 2000-09-19  
NUMBER OF SEQ ID NOS: 26  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 25  
LENGTH: 1907  
TYPE: PRT  
ORGANISM: homo sapiens  
US-11-039-398-25

Query Match 4.0%; Score 92; DB 7; Length 1907;  
Best Local Similarity 20.2%; Pred. No. 15; Indels 172; Gaps 26;  
Matches 92; Conservative 54; Mismatches 138; Indels 172; Gaps 26;

QY 11 QDEDAKHVLEDFGQKVDHVEHGAEN--YVSELKGLS-----LASILGETAFTVKSMQ 62  
DB 622 RDEQCAH-----PDGK-HRVINGLINVRVPRKYSGLIMDRCKLCFRAVAGTA-----669  
QY 63 TESKYTELLEANSKRNPCCKDGKNDVDRFSYKEQAGYDNKKMKCSNGMTCAPFRLHLC 122  
DB 670 ---YQJLRDVIDGPRCGOD--TNDICVQGLCRQAGCD-----HVL 705  
QY 123 NKNFNNMNSDSSKAKHDLAEVCMAAKYEESITKTHPKYDSKYPGSDPFM-----174  
DB 706 N-----SKARD-----KCGVCGGDNSSCKTIVAGTFNTVYGVNTVVRIPAGATN 750  
QY 175 CMLARSPADIGD-----IRG-----RDLYLNKKKKKKONGKET--ER 210  
DB 751 IDVRQHSFSGETDDNYLALSSSKGBFLNGFVVTMAKREIRIGAVAVESGSEIAVER 810  
QY 211 -----EKLBOQLKEIFPKKHIDNLKDKKAKRYNGDEDPNFY-----KLREDMWTANRETVW 261  
DB 811 INSTRIQIBELL-----LQVLSVGKLYNPVDRYSFNIPIEDKPOQFTW--NSHGPW 859  
QY 262 GAMTCKSLDSSSYFRATCNDTGGPSSQTHNKCPRDK-DKGMNAGKPRKAGGDVITVPTV 320

DB 860 QA--CSKPCCGERRKRLVC--TRESQDLTVSDQRCRLPQPHITTEPCGTCD-----908  
QY 321 FDYVPOYLRF-----BEMADFCRKKKKLLEN 348  
DB 909 -----LRHVASRSECSAQCGLGYRTLIDYCAKYSRLDGTKEVDDGFCSSHPR-SN 960  
QY 349 LEKCRGKDKSDERY-----CSRNGYDCBOTISRK 379  
DB 961 REK-CSGECNTGGMWYSAMTECSKS---CDGGTORR 992

RESULT 13  
US-10-793-626-2594  
Sequence 2594, Application US/10793626  
Publication No. US20050255478A1  
GENERAL INFORMATION:  
APPLICANT: KIMMERLY, WILLIAM JOHN  
TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS  
FILE REFERENCE: PUJ480US  
CURRENT APPLICATION NUMBER: US/10/793,626  
CURRENT FILING DATE: 2004-03-04  
PRIOR APPLICATION NUMBER: 60/164,258  
PRIOR FILING DATE: 1999-11-09  
NUMBER OF SEQ ID NOS: 4472  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 2594  
LENGTH: 989  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURES:  
OTHER INFORMATION: Description of Artificial Sequence: synthetic  
OTHER INFORMATION: amino acid sequence  
US-10-793-626-2594

Query Match 4.0%; Score 91.5; DB 6; Length 989;  
Best Local Similarity 19.5%; Pred. No. 7.4;  
Matches 93; Conservative 79; Mismatches 139; Indels 165; Gaps 27;

QY 11 QDEDAKHVLEDFGQKVDHVEHGAENYVSELKGLSLASILGETAFTVKSMQTES---K 66  
DB 11 QQAQVKKITDIF---TGIEKYLTSKNCNDEFANMLINRYSSEANIDIK-METGTGKTYV 66  
QY 67 YTELLEANSKR-----NPKCKDGKNDVDRFSVKE--QAGYDNKKMKCSNGMTC 113  
DB 67 YTKMNYELAKKFGIIFKFLVVPSPAIKRGAKNPLTSLTKHIFQETYGAVIEI-NTINK 125  
QY 114 APF-----RRL--HLCN-----KNFNNMNSDSSKAKHDLAEVCMAA 149  
DB 126 GDFNTRSGRKLFPPLHSFISSNLANQIUVLLINAGMLNNSMTKVDV----QTLIS 181  
QY 150 KYEG--BSIKT-----HYPKYDSKYPGSDPFMCTVLARSPADIGIING-----191  
DB 182 NYSNPBALKATKTSVLIIDBPRFPDKKNYKSILENPQIVRFGATFPPEVKGTGKKA 241  
QY 192 ---RDLYGNKKKKQNGKETREKLBQKKEIFPKKHIDNLKDKKAKRYNGDEDPNFYKL 248  
DB 242 VYIDYRGRPQFILNAVDSFNQGLVKG-I-DIY--YPNLTPEDAKRNYTIDS---VKA 293  
QY 249 RE-----DMWT-----ANRETW-----GAMTCKSLDSSSYFRATCNDTGGP 287  
DB 294 KEIVLKGGKKNKWTGIGENLANIDSLFEGDLSTYGAKTLSDBLEIS-----339  
QY 288 SQTNNKRCRCDKGMNAGKPRKAGGDVITVPTF-----DYVPOYLRFEBEMAD 337  
DB 340 -----KG-----MDLPGTFTVYQELINDALINQ--FEHEINN 372  
QY 338 FCRKKKKLLENLEKCRGKDKS-----DEYR-YCSRNGYDCBOTISKKGKVRMK 386  
DB 373 FMR-----DWIKENFQKVTLSLFFIDISIRSYRNKKGW-LKQTFERLVLVKLRK 421

RESULT 14  
US-10-995-561-764



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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model1

Run on: December 29, 2005, 23:10:51 ; Search time 7.68993 Seconds  
(without alignment)  
3623.140 Million cell updates/sec

Title: US-09-508-967-1\_COPY\_79\_415  
Perfect score: 1884  
Sequence: 1 PCKKDGKGNVDREVSKEQA.....GSYENWIDNOKQKQKQKY 337

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%

Listing first 45 summaries

Database : Issued Patents AA:\*  
1: /cgn2\_6/ptodata/1/1aa/5\_COMB.pep:\*  
2: /cgn2\_6/ptodata/1/1aa/6\_COMB.pep:\*  
3: /cgn2\_6/ptodata/1/1aa/H\_COMB.pep:\*  
4: /cgn2\_6/ptodata/1/1aa/PCUS\_COMB.pep:\*  
5: /cgn2\_6/ptodata/1/1aa/RE\_COMB.pep:\*  
6: /cgn2\_6/ptodata/1/1aa/Backfill1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	892.5	47.4	2182	1	US-08-487-826B-16
2	885	47.0	2710	1	US-08-568-459A-12
3	885	47.0	2710	1	US-08-487-826B-12
4	885	47.0	2710	2	US-09-210-288-12
5	885	47.0	2710	2	US-10-153-273-12
6	885	47.0	3060	1	US-08-487-826B-14
7	845	44.9	700	1	US-08-568-459A-10
8	845	44.9	700	1	US-08-487-826B-10
9	845	44.9	700	2	US-09-210-288-10
10	845	44.9	700	2	US-10-153-273-10
11	653	34.7	3542	2	US-10-087-013-2
12	379.5	20.1	362	1	US-08-568-459A-18
13	379.5	20.1	362	1	US-08-487-826B-18
14	379.5	20.1	362	2	US-09-210-288-18
15	379.5	20.1	362	2	US-10-153-273-18
16	360.5	19.1	411	1	US-08-568-459A-19
17	360.5	19.1	411	1	US-08-487-826B-31
18	360.5	19.1	411	2	US-09-210-288-19
19	360.5	19.1	411	2	US-10-153-273-19
20	281	14.9	1435	1	US-08-568-459A-4
21	281	14.9	1435	1	US-08-487-826B-4
22	281	14.9	1435	2	US-09-210-288-4
23	281	14.9	1435	2	US-10-153-273-4
24	280.5	14.9	749	1	US-08-568-459A-6
25	280.5	14.9	749	1	US-08-487-826B-6
26	280.5	14.9	749	2	US-09-210-288-6
27	280.5	14.9	749	2	US-10-153-273-6

28	241	12.8	921	1	US-08-568-459A-8	Sequence 8, Appli
29	241	12.8	921	1	US-08-487-826B-8	Sequence 8, Appli
30	241	12.8	921	2	US-09-210-288-8	Sequence 8, Appli
31	241	12.8	921	2	US-10-153-273-8	Sequence 8, Appli
32	229.5	12.2	311	2	US-10-087-013-10	Sequence 10, Appli
33	220	11.7	407	2	US-10-087-013-8	Sequence 8, Appli
34	218	11.6	308	2	US-10-087-013-11	Sequence 11, Appli
35	213.5	11.3	351	2	US-10-087-013-9	Sequence 9, Appli
36	207	11.0	1115	1	US-08-568-459A-2	Sequence 2, Appli
37	207	11.0	1115	1	US-08-487-826B-2	Sequence 2, Appli
38	207	11.0	1115	2	US-09-210-288-2	Sequence 2, Appli
39	207	11.0	1115	2	US-10-153-273-2	Sequence 2, Appli
40	207	11.0	1115	6	5198347-6	Patent No. 5198347
41	205	10.9	294	2	US-10-087-013-7	Sequence 7, Appli
42	197.5	10.5	411	1	US-08-568-459A-20	Sequence 20, Appli
43	197.5	10.5	411	1	US-08-487-826B-32	Sequence 32, Appli
44	197.5	10.5	411	2	US-09-210-288-20	Sequence 20, Appli
45	197.5	10.5	411	2	US-10-153-273-20	Sequence 20, Appli

## ALIGNMENTS

```

RESULT 1
US-08-487-826B-16
; Sequence 16, Application US/08487826B
; Patent No. 5993827
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chitnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.
; APPLICANT: Su, Xin-zhaun
; APPLICANT: Wellens, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 45
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knobs Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th Floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/487,826B
; FILING DATE: 10-SEP-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Israelien, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH121.001CPI
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2182 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
; FRAGMENT TYPE: N-terminal
; US-08-487-826B-16
Query Match 47.4%; Score 892.5; DB 1; Length 2182;

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Best Local Similarity 51.9%; Pred. No. 4,56-75;  
Matches 182; Conservative 47; Mismatches 69; Indels 53; Gaps 12;

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QY 1 PCKKDGKNDVDRFS-----VKEAGYNNKKKCKSGMTCAPFRRLHLCNNKFP 49
Db 99 PCRDKAKEDVNRSDTIGGCTNRIRKDSQGGNKKV-----GACAPYRLHLCIDY--- 149
QY 50 MNNSDSSKAKHDLAECVMAAKYEGESIKTHYPKYDSKTPGSPFPMCTMLARSPADIGD 109
Db 150 NLESIDTSTTHKLLEVCMAAKYEGNSINTHYQRTNEDSASQCLTVLARSFADIGD 209
QY 110 IIRGDLVLG--NKKKKONGKETEREKLEBOKLEIFPKIH--DNLDKDAQRKRYNGD--EDP 165
Db 210 IVRGDLVLGYDNKEKEQ-----RKLEBOKLEIDFKIHDVMTKNTGAQERYIDDAKGG 263
QY 166 NFYKLRDMWTANRTEVGMATCSKELDNSSIFRATCNDTGQGSQTHNKRCDKXKAN 225
Db 264 DFOURREDWMTSNRETTWKALICHAPKRYANFIKTACN--VGKQ---TNGQCHC----- 312
QY 226 AGKPAAGDGVTVITVTFEDYVPQYLRFWEAEDFCRKKKKKLEMLEKQCRGKDKSDEYR 285
Db 313 -----IGGD-----VPTTFDYVPQYLRFWEAEDFCRKKKKKLEMLEKQCRDYEQN---L 360
QY 286 YCSRNGYCEOTISRKGKVRMGKCTDCEFPAGSYENWIDNQRKQFDKQK 336
Db 361 YCSGNGYCTKTIYKKGKLVIGEHCTGCSVWCMTYETIDNQKEFLKQKR 411
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RESULT 2  
US-08-568-459A-12  
; Sequence 12, Application US/08568459A  
; Patent No. 5849306

## GENERAL INFORMATION:

APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/568,459A  
FILING DATE: 07-DEC-1995  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Israelsen, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121.001CPL  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO

ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
US-08-568-459A-12

Query Match 47.0%; Score 885; DA 1; Length 2710;  
Best Local Similarity 50.7%; Pred. No. 3,1e-74;  
Matches 174; Conservative 46; Mismatches 77; Indels 46; Gaps 10;

```
QY 1 PCR-----KDGKNDVDRFSYKDAQYNNKKKCKSGMTCAPFRRLHLCNNKFP 53
Db 91 PCADRSPVRSDEYGGCTNRIRKDSQGGNKKV-----ACAPYRLHLCIDNLEQIEP 143
QY 54 NDSKAKHDLAECVMAAKYEGESIKTHYPKYDSKTPGSPFPMCTMLARSPADIGIIRG 113
Db 144 IKITNT--HNLVLCVMAAKYEGESITODYIKYATIGDSQSQCLTVLARSFADIGDVRG 202
QY 114 RDLVLGKKKKONGKETEREKLEBOKLEIFPKIHDLKDAQRKRYNGEDPNFYKLRD 173
Db 203 RDLVLGSPQELK-----QROQLNNLKTIFGKIYEKLNGAEA--RVG--NDPFFKLRED 253
QY 174 WMTANRETVGMATCSKELDNSSIFRATCNDTGQGSQTHNKRCDKXKANAGKPAAGD 233
Db 254 WMTANRETVGMATCSKELDNSSIFRATCNDTGQGSQTHNKRCDKXKANAGKPAAGD 236
QY 234 GDTVTIVPTVTFEDYVPQYLRFWEAEDFCRKKKKKLEMLEKQCRGKDKSDEYRCSRYGD 293
Db 297 -----VPTTFDYVPQYLRFWEAEDFCRKKKKKLEMLEKQCRDYEQN---L 360
QY 294 CEOTISRKGKVRMGKCTDCEFPAGSYENWIDNQRKQFDKQK 336
Db 352 CEKTKRAIGKLRIGKQKISCLVACNPFYVDINNQRKQFDKQK 394
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RESULT 3  
US-08-487-826B-12  
; Sequence 12, Application US/08487826B  
; Patent No. 5993827

## GENERAL INFORMATION:

APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/487,826B  
FILING DATE: 10-SEP-1993  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Israelsen, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121.001CPL  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids

TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
US-08-487-8268-12

Query Match 47.0%; Score 885; DB 1; Length 2710;  
Best Local Similarity 50.7%; Pred. No. 3,1e-74;  
Matches 174; Conservative 46; Mismatches 77; Indels 46; Gaps 10;

QY 1 PCK-----KDGKNDVDRPSVKEQAGYDNKKKCSNGMTCAFPRLHLCKNFPNNNS 53  
DB 91 PCADRSVDRFSDEYGGQCTHNRKIDSGQGNKG-----ACAPYRLHVCDDQMLEQIEP 143  
QY 54 NDSSKAKHDLAEVCMARKYEGESIKTHYPKYDSKYPSGDFPMCTMLARSPADIGDIIRG 113  
DB 144 IKITNT-HNLIVDCMAKFEQOSITDYPKYQATYGSPSQICTMLARSPADIGDIVRG 202  
QY 114 RDLVGNKKKKQNGKETEREKLEQKKEIFKKIHDLKDKAQRKYNQDDEPNFYKLRD 173  
DB 203 RDLVGNFQEKI-----ORQLENNLKTFGKIYEKLGAAE--RYG--NDPEFKLRD 253  
QY 174 WMTANRETVMGAMTCSKELNDSYFRATCNDTGGSPSQTNNKCRCDKXGKAGKPKXAGD 233  
DB 254 WMTANRETVMKAITCTNAM--GNTYFHATCN--RG-ERTKGYCRCDNDQ----- 296  
QY 234 GDVTVPTFYVPQYLRFMEFEMADFCRKKKKLENEKOCRGKDSDEYRYSRNGYD 293  
DB 297 -----VPTFYDPYVQYLRMFEWADFCRKKKKIKDYKRNCRGDKDKRYSRNGYD 351  
QY 294 CEQITSRKGYRMKGCTDCEFFACGSYNNWIDNQRKQFDKQK 336  
DB 352 CEKTRAIQKLRYGKQICSLYACNPYVDWNNQKEQFDKQK 394

## RESULT 4

US-09-210-288-12

Sequence 12, Application US/09210288

Patent No. 6392026

GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

APPLICANT: Chitnis, Chetan

APPLICANT: Miller, Louis H.

APPLICANT: Peterson, David S.

APPLICANT: Su, Xin-zhaun

APPLICANT: Wellens, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX

TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESS:

ADDRESS: Knobbe Martens Olson & Bear

STREET: 620 Newport Center Drive 16th floor

CITY: Newport Beach

STATE: California

COUNTRY: US

ZIP: 92660

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/210,288

FILING DATE:

CLASSIFICATION:

ATTORNEY/AGENT INFORMATION:

NAME: Fuller, Michael

REGISTRATION NUMBER: 36,516

REFERENCE/DOCKET NUMBER: NIH121.1FWDV1

TELECOMMUNICATION INFORMATION:

TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:

LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
US-09-210-288-12

Query Match 47.0%; Score 885; DB 2; Length 2710;  
Best Local Similarity 50.7%; Pred. No. 3,1e-74;  
Matches 174; Conservative 46; Mismatches 77; Indels 46; Gaps 10;

QY 1 PCK-----KDGKNDVDRPSVKEQAGYDNKKKCSNGMTCAFPRLHLCKNFPNNNS 53  
DB 91 PCADRSVDRFSDEYGGQCTHNRKIDSGQGNKG-----ACAPYRLHVCDDQMLEQIEP 143  
QY 54 NDSSKAKHDLAEVCMARKYEGESIKTHYPKYDSKYPSGDFPMCTMLARSPADIGDIIRG 113  
DB 144 IKITNT-HNLIVDCMAKFEQOSITDYPKYQATYGSPSQICTMLARSPADIGDIVRG 202  
QY 114 RDLVGNKKKKQNGKETEREKLEQKKEIFKKIHDLKDKAQRKYNQDDEPNFYKLRD 173  
DB 203 RDLVGNFQEKI-----ORQLENNLKTFGKIYEKLGAAE--RYG--NDPEFKLRD 253  
QY 174 WMTANRETVMGAMTCSKELNDSYFRATCNDTGGSPSQTNNKCRCDKXGKAGKPKXAGD 233  
DB 254 WMTANRETVMKAITCTNAM--GNTYFHATCN--RG-ERTKGYCRCDNDQ----- 296  
QY 234 GDVTVPTFYVPQYLRFMEFEMADFCRKKKKLENEKOCRGKDSDEYRYSRNGYD 293  
DB 297 -----VPTFYDPYVQYLRMFEWADFCRKKKKIKDYKRNCRGDKDKRYSRNGYD 351  
QY 294 CEQITSRKGYRMKGCTDCEFFACGSYNNWIDNQRKQFDKQK 336  
DB 352 CEKTRAIQKLRYGKQICSLYACNPYVDWNNQKEQFDKQK 394

## RESULT 5

US-10-153-273-12

Sequence 12, Application US/10153273

Patent No. 6962987

GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

APPLICANT: Chitnis, Chetan

APPLICANT: Miller, Louis H.

APPLICANT: Peterson, David S.

APPLICANT: Su, Xin-zhaun

APPLICANT: Wellens, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX

TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESS:

ADDRESS: Knobbe Martens Olson & Bear

STREET: 620 Newport Center Drive 16th floor

CITY: Newport Beach

STATE: California

COUNTRY: US

ZIP: 92660

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/153,273

FILING DATE: 21-May-2002

CLASSIFICATION: <Unknown>



PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH21.1FMDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2710 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 12:  
US-10-153-273-12

Query Match 47.0%; Score 885; DB 2; Length 2710;  
Best Local Similarity 50.7%; Pred. No. 3.1e-74;  
Matches 174; Conservative 46; Mismatches 77; Indels 46; Gaps 10;

QY 1 PCK-----KDGKNDVDRFSVKEAGYDNKKKCSNGMTCAPRRLHLCKNKPNNNS 53  
DB 91 PCADRSDFRFSDEYGGQCTHNRKIDSGQDNKG-----ACAPRRHLVCDQNLQIEP 143  
QY 54 NDSSKAKHDLAEVOMAKYBESIKTHYPKYDSKYPGSDPFCMTMLARSPADIGDIRG 113  
DB 144 IKITNT-HNLLVDVOMAKFEGSITODYPKYQATYGSPSQICTMLARSPADIGDIRG 202  
QY 114 RDLVGNKKKKQNGKETEREKLEQKLEIFKKIHNLKDKAQRKYNDEDPNFKLRED 173  
DB 203 RDLVGNQOEIK-----QRQLENNLKTFPGKIYEKLNGBA--RYG--NDPEFKLRED 253  
QY 174 WMTANRETVMGAMTSKELDNSSYFRATCNTGGPSQTHNKCRCDDKGNAGKPKAGD 233  
DB 254 WMTANRETVMKALITCNAM--GNTYFHATCN--RG-ERTKGCRCNDQ----- 296  
QY 234 GDVTIVPTFYDYPQYLRFWEFEMADEFCRKKKKKLEMLEKQCRGKSDERYYSRNGYD 293  
DB 297 -----VPTFYDYPQYLRFWEFEMADEFCRKKKKIKDYKRCRGKEDKDRYCSRNGYD 351  
QY 294 CEQTSRKGYRMGKCTDCFPACGSYENWIDNQRKQPKOKK 336  
DB 352 CEKTRAIQKLRYGKQCTISCLYACNPYDWINNKEQFPDKOKK 394

## RESULT 6

US-08-487-826B-14  
Sequence 14, Application US/08487826B  
Patent No. 5993827  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 45  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/487,826B  
FILING DATE: 10-SEP-1993  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Israelien, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH21.001CP1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 14:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 3060 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-487-826B-14

Query Match 47.0%; Score 885; DB 1; Length 3060;  
Best Local Similarity 50.7%; Pred. No. 3.6e-74;  
Matches 174; Conservative 46; Mismatches 77; Indels 46; Gaps 10;

QY 1 PCK-----KDGKNDVDRFSVKEAGYDNKKKCSNGMTCAPRRLHLCKNKPNNNS 53  
DB 89 PCADRSDFRFSDEYGGQCTHNRKIDSGQDNKG-----ACAPRRHLVCDQNLQIEP 141  
QY 54 NDSSKAKHDLAEVOMAKYBESIKTHYPKYDSKYPGSDPFCMTMLARSPADIGDIRG 113  
DB 142 IKITNT-HNLLVDVOMAKFEGSITODYPKYQATYGSPSQICTMLARSPADIGDIRG 200  
QY 114 RDLVGNKKKKQNGKETEREKLEQKLEIFKKIHNLKDKAQRKYNDEDPNFKLRED 173  
DB 201 RDLVGNQOEIK-----QRQLENNLKTFPGKIYEKLNGBA--RYG--NDPEFKLRED 251  
QY 174 WMTANRETVMGAMTSKELDNSSYFRATCNTGGPSQTHNKCRCDDKGNAGKPKAGD 233  
DB 252 WMTANRETVMKALITCNAM--GNTYFHATCN--RG-ERTKGCRCNDQ----- 294  
QY 234 GDVTIVPTFYDYPQYLRFWEFEMADEFCRKKKKKLEMLEKQCRGKSDERYYSRNGYD 293  
DB 295 -----VPTFYDYPQYLRFWEFEMADEFCRKKKKIKDYKRCRGKEDKDRYCSRNGYD 349  
QY 294 CEQTSRKGYRMGKCTDCFPACGSYENWIDNQRKQPKOKK 336  
DB 350 CEKTRAIQKLRYGKQCTISCLYACNPYDWINNKEQFPDKOKK 392

## RESULT 7

US-08-568-459A-10  
Sequence 10, Application US/08568459A  
Patent No. 5849306  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobb Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California

```

; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/568,459A
; FILING DATE: 07-DEC-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Israelien, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH121.001CP1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
; US-08-568-459A-10

```

Query Match 44.9%; Score 845; DB 1; Length 700;

Best Local Similarity 54.9%; Pred. No. 3e-71; Matches 166; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

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QY 35 CAPRRRLHLCNKNPNMNSDSKAKDLDLAECVMAAKYBESJIKTHYPKYSKYPSGDF 94
DB 10 CAPRRRLHLCDY--NLESIDTSTHKLLEVCMAAYEENSINTHYTORHTEBSAS 66
QY 95 PMCTMLARSPADIDIGRDLVYG--NKKKXGKETEERKLEOKLEIKKIH-DNLK 151
DB 67 QLCVTLARSPADIDIGRDLVYGDKKEQ-----RKLEOKKIDIFKIKHDKVMK 120
QY 152 DKEAKRYNGD-EDPNFYKLREDMTANRETVMGAMTCSKELDNSYFRATCNDTGQSPS 210
DB 121 TNGAQRITIDAKGDFQLREDMTSNRETVMKALICHAPKEANYFIKTACN-VGKG-- 177
QY 211 QTHNKCRCDDKDGANAGKPRAGDGVTVPTYPDYVPQYLRFEMABDFCRKXKKKLEN 270
DB 178 -TNGQCHC-----IGD-----VPTYPDYVPQYLRFEMABDFCRKXKKKLEN 220
QY 271 LEKCRGKDSDEYRYSRNGYDCEQITSRGKVRMGKCTDCCFACGSYENWIDNQKQ 330
DB 221 LQKCRDYEQN--LYCSGNGYDCTKTIYKKGKLVIGBHCNCSVWCMTETWIDNQKE 277
QY 331 FDKOKK 336
DB 278 FLKOKR 283

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RESULT 8
; US-08-487-826B-10
; Sequence 10, Application US/08487826B
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chitnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.
; APPLICANT: Su, Xin-zhaun
; APPLICANT: Wellem, Thomas E.
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
; TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
; NUMBER OF SEQUENCES: 45

```

```

; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Knobbe Martens Olson & Bear
; STREET: 620 Newport Center Drive 16th Floor
; CITY: Newport Beach
; STATE: California
; COUNTRY: US
; ZIP: 92660
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/487,826B
; FILING DATE: 10-SEP-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Israelien, Ned
; REGISTRATION NUMBER: 29,655
; REFERENCE/DOCKET NUMBER: NIH121.001CP1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (619) 235-8550
; TELEFAX: (619) 235-0176
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 700 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Plasmodium falciparum
; US-08-487-826B-10

```

Query Match 44.9%; Score 845; DB 1; Length 700;

Best Local Similarity 54.9%; Pred. No. 3e-71; Matches 166; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

```

QY 35 CAPRRRLHLCNKNPNMNSDSKAKDLDLAECVMAAKYBESJIKTHYPKYSKYPSGDF 94
DB 10 CAPRRRLHLCDY--NLESIDTSTHKLLEVCMAAYEENSINTHYTORHTEBSAS 66
QY 95 PMCTMLARSPADIDIGRDLVYG--NKKKXGKETEERKLEOKLEIKKIH-DNLK 151
DB 67 QLCVTLARSPADIDIGRDLVYGDKKEQ-----RKLEOKKIDIFKIKHDKVMK 120
QY 152 DKEAKRYNGD-EDPNFYKLREDMTANRETVMGAMTCSKELDNSYFRATCNDTGQSPS 210
DB 121 TNGAQRITIDAKGDFQLREDMTSNRETVMKALICHAPKEANYFIKTACN-VGKG-- 177
QY 211 QTHNKCRCDDKDGANAGKPRAGDGVTVPTYPDYVPQYLRFEMABDFCRKXKKKLEN 270
DB 178 -TNGQCHC-----IGD-----VPTYPDYVPQYLRFEMABDFCRKXKKKLEN 220
QY 271 LEKCRGKDSDEYRYSRNGYDCEQITSRGKVRMGKCTDCCFACGSYENWIDNQKQ 330
DB 221 LQKCRDYEQN--LYCSGNGYDCTKTIYKKGKLVIGBHCNCSVWCMTETWIDNQKE 277
QY 331 FDKOKK 336
DB 278 FLKOKR 283

```

```

RESULT 9
; US-09-210-288-10
; Sequence 10, Application US/09210288
; GENERAL INFORMATION:
; APPLICANT: Sim, Kim L.
; APPLICANT: Chitnis, Chetan
; APPLICANT: Miller, Louis H.
; APPLICANT: Peterson, David S.

```

```

APPLICANT: Su, Xin-zhaun
APPLICANT: Wellens, Thomas E.
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSER: Knobbe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/210,288
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36,516
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 700 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
US-09-210-288-10

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Query Match 44.9%; Score 845; DB 2; Length 700;
Best Local Similarity 54.9%; Pred. No. 3e-71;
Matches 168; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

Qy 35 CAPRRRLHLCNKNPNMNSNDSSKAKDHLAEVCMAYEGESIKTHYPKYDSKYPGSDF 94
Db 10 CAPRRRLHLCY--NLESIDTSTTHKLLEVCMAAYEGNSINTHYTQRTNEDSAS 66
Qy 95 PMCTMLARSPADIGDIIIRGRDLYLG--NKKKKONGKETREKLEOKLEIFKTIH-DNLK 151
Db 67 QLCIVLARSPADIGDIIIRGRDLYLGIDYDNKEKEQ-----RKLEOKLEIDIFKTIHDKVMK 120
Qy 152 DKEAKRYNGD-EDPNFYKLRBDWMTANRETVMGAMTCSKELNDSYFRATCNDTGOGPS 210
Db 121 TNGAQRITIDAKGDFQLREDWMTSNRETVMKALICHAPKEANYFIKTACN--VGKG-- 177
Qy 211 QTNKKRCDDKDGANAGKPKAGDGDVTVIPYFDVPOYLRFEMFEMADFCRKKKKKLEN 270
Db 178 -TNGQCHC-----IGGD-----VPIYFDVPOYLRFEMFEMADFCRKKKKKLEN 220
Qy 271 LEKQCRGKDSDEYRYSRNGYDCQRTISRKGVRMGKGTDCFFACGSYENWIDNORKQ 330
Db 221 LQKQCRDYEN--LYCSGNGYDCTKTIYKKGKLVIGSHCTNCSVWCMYETWIDNOKKE 277
Qy 331 PDKOKK 336
Db 278 FLKQKR 283

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RESULT 10
US-10-153-273-10
Sequence 10, Application US/10153273
Patent No. 6962987

```

```

GENERAL INFORMATION:
APPLICANT: Sim, Kim L.
Chitnis, Chetan
Miller, Louis H.
Peterson, David S.
Su, Xin-zhaun
Wellens, Thomas E.
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSER: Knobbe Martens Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STATE: California
COUNTRY: US
ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/153,273
FILING DATE: 21-May-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/210,288
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Fuller, Michael
REGISTRATION NUMBER: 36,516
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 700 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHEICAL: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium falciparum
SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-10-153-273-10

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Query Match 44.9%; Score 845; DB 2; Length 700;
Best Local Similarity 54.9%; Pred. No. 3e-71;
Matches 168; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

Qy 35 CAPRRRLHLCNKNPNMNSNDSSKAKDHLAEVCMAYEGESIKTHYPKYDSKYPGSDF 94
Db 10 CAPRRRLHLCY--NLESIDTSTTHKLLEVCMAAYEGNSINTHYTQRTNEDSAS 66
Qy 95 PMCTMLARSPADIGDIIIRGRDLYLG--NKKKKONGKETREKLEOKLEIFKTIH-DNLK 151
Db 67 QLCIVLARSPADIGDIIIRGRDLYLGIDYDNKEKEQ-----RKLEOKLEIDIFKTIHDKVMK 120
Qy 152 DKEAKRYNGD-EDPNFYKLRBDWMTANRETVMGAMTCSKELNDSYFRATCNDTGOGPS 210
Db 121 TNGAQRITIDAKGDFQLREDWMTSNRETVMKALICHAPKEANYFIKTACN--VGKG-- 177
Qy 211 QTNKKRCDDKDGANAGKPKAGDGDVTVIPYFDVPOYLRFEMFEMADFCRKKKKKLEN 270
Db 178 -TNGQCHC-----IGGD-----VPIYFDVPOYLRFEMFEMADFCRKKKKKLEN 220
Qy 271 LEKQCRGKDSDEYRYSRNGYDCQRTISRKGVRMGKGTDCFFACGSYENWIDNORKQ 330
Db 221 LQKQCRDYEN--LYCSGNGYDCTKTIYKKGKLVIGSHCTNCSVWCMYETWIDNOKKE 277

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Qy 331 FDXOKK 336  
Db 278 FLXOKR 283

## RESULT 11

US-10-087-013-2  
Sequence 2, Application US/10087013  
Patent No. 6855323  
GENERAL INFORMATION:  
APPLICANT: Arthur Scherf  
APPLICANT: Louis H. Miller  
APPLICANT: Benoit Gamain  
APPLICANT: Dior I. Barnuch  
APPLICANT: Pierre Buffet  
APPLICANT: Christine Scheidig  
APPLICANT: Bruno Pouvelle  
APPLICANT: Joseph Smith  
APPLICANT: No. 6855323utaka Fujii  
TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF  
TITLE OF INVENTION: PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1  
TITLE OF INVENTION: (PFEMP1) THAT MEDIATES ADHESION TO CHONDROITIN SULFATE A  
FILE REFERENCE: NIH176.001C1  
CURRENT APPLICATION NUMBER: US/10/087.013  
CURRENT FILING DATE: 2002-02-21  
PRIOR APPLICATION NUMBER: PCT/US00/24195  
PRIOR FILING DATE: 2000-09-01  
PRIOR APPLICATION NUMBER: 60/152,023  
PRIOR FILING DATE: 1999-09-01  
NUMBER OF SEQ ID NOS: 11  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 2  
LENGTH: 3542  
TYPE: PRT  
ORGANISM: Plasmodium falciparum  
US-10-087-013-2

Query Match 34.7%; Score 653; DB 2; Length 3542;

Best Local Similarity 40.9%; Pred. No. 4.1e-52;  
Matches 147; Conservative 48; Mismatches 100; Indels 64; Gaps 15;

Qy 1 PCKKDKG-----GNDVRSVKEQAGYDNK---KMKSGNGTCAEFR 39  
Db 87 PCNDLHBEHTNLRYDVNLRHPCGHRBQNRFDDEDESCGKNIRYRK-NDALACAPPR 145  
Qy 40 RLHLCKNKPMMNSNDSSKAKGDLAEVCMAYEGESIKTHYPKYDSKYPGSDPFPMCTM 99  
Db 146 RRMWCDNLEALNINQNTI-HDLLGNLVYAKYEGESIVNNHP-----HKGTG-DACTA 198  
Qy 100 LARSFADIGDIIRGDLVGNKKKKKQNGKETEREKLEQKLKEIFKTIHDLKDYEAQKRY 159  
Db 199 LARSFADIGDIVRGIDMF-----KPVVHDKVETGLREVFVKIHDGMED-EVKNDY 247  
Qy 160 NGDDEDPNYKLRBEPMWTANRETWGAMTCSKELDNSSYFRAFCNDTGGPSQTHKKCD 219  
Db 248 NPDSGNTYKLRBEPMWTANRETWGAMTCSKELDNSSYFRAFCNDTGGPSQTHKKCD 300  
Qy 220 KDKGANAGKPYAGDGVTVIVPTFYDVYPOYLRFWEEMAEDFCRKKKKLEMLEKQCRGKD 279  
Db 301 ---GHKQK-----VPTNLDYVPOYLRFWPEWEEFCRKKNITLKYKQSCR-ND 346  
Qy 280 KSDERYCSNRNGYDCEQITSRKGVKRMGKCTDGFACGSYEMWIDNQRKQFQKQ-KY 337  
Db 347 K-ERLYCSHNGHCTTTIMKKGILHLNDKCTDCTCKKVFVEMVIGNQOBAFKQKQKRY 403

RESULT 12  
US-08-568-459A-18  
Sequence 18, Application US/08568459A  
Patent No. 5849306  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.

APPLICANT: Chitnis, Chetan  
APPLICANT: Miller, Louis H.  
APPLICANT: Peterson, David S.  
APPLICANT: Su, Xin-zhaun  
APPLICANT: Williams, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
TITLE OF INVENTION: AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:

ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/568.459A  
FILING DATE: 07-DEC-1995  
CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:  
NAME: Israelien, Ned  
REGISTRATION NUMBER: 29,655  
REFERENCE/DOCKET NUMBER: NIH121.001CP1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 18:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 362 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
HYPOTHEICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: internal  
ORIGINAL SOURCE:

US-08-568-459A-18

Query Match 20.1%; Score 379.5; DB 1; Length 362;  
Best Local Similarity 31.3%; Pred. No. 1.5e-27;  
Matches 93; Conservative 14; Mismatches 149; Indels 41; Gaps 5;

Qy 35 CAPPRRLHLCKNKPMMNSNDSSKAKGDLAEVCMAYEGESIKTHYPKYDSKYPGSDPF 94  
Db 2 CAPPRRLHLCDY--NLXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 58  
Qy 95 PMCTMLARSFADIGDIIRGDLVYG-NKKKQNGKETEREKLEQKLKEIFKTIHDLKID 152  
Db 59 QLCVTLARSFADIGDIVRGDLVGYDNKXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 118  
Qy 153 KEAQKRNGBDEPFPYKLRBEPMWTANRETWGAMTCSKELDNSSYFRAFCNDTGGPSQT 212  
Db 119 XXXXXXXXGDD---FQLRBDMWTSNRETWKALICAXXXXXXXXXXXXXX 164  
Qy 213 HNKCRCDKGANAGKPYAGDGVTVIVPTFYDVYPOYLRFWEEMAEDFCRKKKKLEMLE 272  
Db 165 -----XXXXXXXXXXXXXXXXXXXXXXXXXXVPOYLRFWEEMAEDFCRKKKKLEMLE 214  
Qy 273 KQCRGKDKSDERYCSNRNGYDCEQITSRKGVKRMGKCTDGFACGSYEMWIDNQRK 329  
Db 215 KQ-----CXXXXXXXXXXXXXXXXXXXXCTNCSVWCRAWETWIDNQRK 259

RESULT 13  
US-08-487-826B-30  
Sequence 30, Application US/08487826B  
Patent No. 5993827



RESULT 15  
US-10-153-273-18  
Sequence 18, Application US/10153273  
Patent No. 6962987  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellens, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESSES:  
ADDRESSEE: Knodde Martens Olsson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 18:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 362 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
HYPOTHETICAL: NO  
ANTI-SENSE: NO  
FRAGMENT TYPE: internal  
ORIGINAL SOURCE:  
SEQUENCE DESCRIPTION: SEQ ID NO: 18:  
US-10-153-273-18  
Query Match 20.1%; Score 379.5; DB 2; Length 362;  
Best Local Similarity 31.3%; Pred. No. 1.5e-27;  
Matches 93; Conservative 14; Mismatches 149; Indels 41; Gaps 5;  
QY 35 CAPRRRLHCNKNPNNMNSDSKAKHDLAEVCAAYEGESIKTHYPKYDSKYPGSDF 94  
DB 2 CAPYRLHLCDY---NLXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 58  
QY 95 PMCTMLARSPADIGDIRGRDLYLG--NKKKKQNGKETEREKLEOKLEIFKIHDLNLD 152  
DB 59 QLCITLARSFADIGIVGKDLVLYGDNKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 118  
QY 153 KEAQRYNGDEDPNFKREDMTANRETWVGAMTCSKELNDSYFRATCNIDTGGPSQT 212  
DB 119 XXXXXXXXGSD---FPQLRBDPMWTSNRETVMKALICHAXXXXXXXXXXXXX----- 164  
QY 213 HNKGRCDKDGKANGKPKAGDGDVTIVPTVFDYVPOYLRFEBWADEFCRKKKKLENTLE 272  
DB 165 -----XXXXXXXXXXXXXXXXXXXXXVFPQYLRFBWADEFCRKKKKLENTLQ 214

QY 273 KQCRGKDSDEYRYCSHNGYDCBQTTSRKGVKMGCTDPCFACSGSYENWIDNQK 329  
DB 215 KQ-----CXXXXXXXXXXXXXXXXXXXXXXXXCTNCSVCRMYETWIDNQK 259

Search completed: December 29, 2005, 23:17:20  
Job time : 8.68993 secs

**This Page Blank (uspto)**

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

## OM protein - protein search, using SW model

Run on: December 29, 2005, 23:15:07 ; Search time 36.7534 Seconds  
(without alignments)  
3831.174 Million cell updates/sec

Title: US-09-508-967-1\_COPY\_79\_415

Perfect score: 1884

Sequence: 1 PCKKDKGKNDVRSVKEQA.....GSYENWIDNQRKQPKQKKY 337

## Scoring table:

BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

## Database : Published Applications AA Main:

1: /cgn2\_6/ptodata/1/pubpaa/US07\_PUBCOMB.pep:\*  
2: /cgn2\_6/ptodata/1/pubpaa/US08\_PUBCOMB.pep:\*  
3: /cgn2\_6/ptodata/1/pubpaa/US09\_PUBCOMB.pep:\*  
4: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*  
5: /cgn2\_6/ptodata/1/pubpaa/US10B\_PUBCOMB.pep:\*  
6: /cgn2\_6/ptodata/1/pubpaa/US11\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	885	47.0	2710	4	US-10-153-273-12
2	845	44.9	700	4	US-10-153-273-10
3	653	34.7	3542	4	US-10-087-013-2
4	379.5	20.1	362	4	US-10-153-273-18
5	360.5	19.1	411	4	US-10-153-273-19
6	308.5	16.4	1143	4	US-09-924-154-14
7	308.5	16.4	1210	5	US-10-677-980-2
8	281	14.9	1435	4	US-10-153-273-4
9	280.5	14.9	749	4	US-10-153-273-6
10	280.5	14.9	1086	3	US-09-924-154-15
11	270	14.3	616	4	US-10-293-913A-4
12	269	14.3	616	4	US-10-293-913A-2
13	269	14.3	1421	3	US-09-924-154-13
14	241	12.8	921	4	US-10-153-273-8
15	235	12.5	972	3	US-09-924-154-16
16	229.5	12.2	311	4	US-10-087-013-10
17	220	11.7	407	4	US-10-087-013-8
18	218	11.6	308	4	US-10-087-013-11
19	216.5	11.5	1501	3	US-09-924-154-17
20	216.5	11.5	1568	5	US-10-712-533A-12
21	213.5	11.3	351	4	US-10-087-013-9
22	207	11.0	1115	4	US-10-153-273-2
23	205	10.9	294	4	US-10-087-013-7
24	197.5	10.5	411	4	US-10-153-273-20
25	159.5	8.5	282	4	US-10-153-273-16
26	158.5	8.4	277	4	US-10-153-273-15
27	128.5	6.8	448	4	US-10-153-668-370

28	126	6.7	291	4	US-10-153-273-13	Sequence 13, Appl
29	121	6.4	311	4	US-10-153-273-21	Sequence 21, Appl
30	117.5	6.2	754	4	US-10-153-668-254	Sequence 254, App
31	116	6.2	737	5	US-10-450-763-40642	Sequence 40642, A
32	115.5	6.1	281	4	US-10-424-559-145507	Sequence 145507,
33	115	6.1	324	4	US-10-153-273-17	Sequence 17, Appl
34	111	5.9	1255	5	US-10-471-934-4	Sequence 4, Appl1
35	111	5.9	1257	4	US-10-408-765A-1486	Sequence 1486, Ap
36	110.5	5.9	6761	5	US-10-732-923-15035	Sequence 15035, A
37	108	5.7	665	3	US-09-820-843A-107	Sequence 107, App
38	108	5.7	1647	5	US-10-732-923-8314	Sequence 8314, Ap
39	107.5	5.7	680	6	US-11-097-143-30936	Sequence 30936, A
40	107.5	5.7	870	5	US-10-450-763-30674	Sequence 30674, A
41	107.5	5.7	1064	4	US-10-220-510-1	Sequence 1, Appl1
42	107.5	5.7	1064	5	US-10-723-860-3242	Sequence 3242, Ap
43	107	5.7	284	4	US-10-424-559-144189	Sequence 144189, i
44	106.5	5.7	1002	4	US-10-654-416-4	Sequence 4, Appl1
45	105	5.6	1154	3	US-09-962-854A-4	Sequence 4, Appl1

## ALIGNMENTS

RESULT 1  
US-10-153-273-12  
; Sequence 12, Application US/10153273  
; Publication No. US20020169305A1  
; GENERAL INFORMATION:  
; APPLICANT: Sim, Kim L.  
; Chitnib, Chetan  
; Miller, Louis H.  
; Peterson, David S.  
; Su, Xin-zhaun  
; Wellens, Thomas E.  
; TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
; NUMBER OF SEQUENCES: 37  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Knobbé Martens Olson & Bear  
; STREET: 620 Newport Center Drive 16th floor  
; CITY: Newport Beach  
; STATE: California  
; COUNTRY: US  
; ZIP: 92660  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patentin Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/10/153,273  
; FILING DATE: 21-May-2002  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/09/210,288  
; FILING DATE: <Unknown>  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Fuller, Michael  
; REGISTRATION NUMBER: 36,516  
; REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (619) 235-8550  
; TELEFAX: (619) 235-0176  
; INFORMATION FOR SEQ ID NO: 12:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 2710 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
; HYPOTHETICAL: NO  
; ORIGINAL SOURCE:  
; ORGANISM: Plasmodium falciparum



SEQUENCE DESCRIPTION: SEQ ID NO: 12;  
US-10-153-273-12

Query Match 47.0%; Score 885; DB 4; Length 2710;  
Best Local Similarity 50.7%; Pred. No. 1.8e-67;  
Matches 174; Conservative 46; Mismatches 77; Indels 46; Gaps 10;

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OY 54 NDSKAKKDLAEVCMAAKYGESIKTYPKYDSKYPSDFPMTMLARSPADIGDITRG 113
DB 144 IKITWT-HNLVYVCMAAKFBQSITQDYPRYQATYGPSQICTMLARSPADIGDIYRG 202
OY 114 RDLVYGNFKKONGKETEREKLEQKLEIFKKIHNLKDKSAOKRYNGDEDPNFKLRED 173
DB 203 RDLVYGNFKKONGKETEREKLEQKLEIFKKIHNLKDKSAOKRYNGDEDPNFKLRED 253
OY 174 WMTANRETVMGAMTCSKELDNSSYFRATCNDTGOQSPQTHNKCRCDDKXGANKPKXAGD 233
DB 254 WMTANRETVMGAMTCSKELDNSSYFRATCNDTGOQSPQTHNKCRCDDKXGANKPKXAGD 296
OY 234 GDVTIVPTFYVPOYLRFMEFEMADFCRKKKKKLENELEKOCRGKDSDEYRYSRNGYD 293
DB 297 -----VPTFYVPOYLRFMEFEMADFCRKKKKKIDYKRCRGKDEKDRYCSRNGYD 351
OY 294 CEQTSRKGVKRMKGCTDCFPACGSYENWIDNOKRPFDKOKK 336
DB 352 CEKTRALIGKLRYGKQCTSLYACNPYVWIDNOKRPFDKOKK 394
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## RESULT 2

US-10-153-273-10  
Sequence 10, Application US/10153273  
Publication No. US20020169305A1

## GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

Chilnis, Chetan

Miller, Louis H.

Peterson, David S.

Su, Xin-zhaun

Wellens, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

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Wellems, Thomas E.

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Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

Wellems, Thomas E.

## SEQUENCE CHARACTERISTICS:

LENGTH: 700 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: protein

HYPOTHEICAL: NO

ORIGINAL SOURCE:

ORGANISM: Plasmodium falciparum

SEQUENCE DESCRIPTION: SEQ ID NO: 10;

## US-10-153-273-10

Query Match 44.9%; Score 845; DB 4; Length 700;  
Best Local Similarity 54.9%; Pred. No. 1e-64;  
Matches 168; Conservative 43; Mismatches 59; Indels 36; Gaps 10;

```
OY 35 CAPFRRLHLCNKNPNNMSNDSKAKKDLAEVCMAAKYGESIKTYPKYDSKYPSDF 94
DB 10 CAPFRRLHLCNKNPNNMSNDSKAKKDLAEVCMAAKYGESIKTYPKYDSKYPSDF 66
OY 95 PMCTMLARSPADIGDITRGDLYLG--NKKKONGKETEREKLEQKLEIFKKIH-DNLK 151
DB 67 QCTVLAARSPADIGDITRGDLYLGDKYDNKEQ-----RKLEQKLEIFKKIHDKVMK 120
OY 152 DKAOKRYNGD-EDPNYKLRBEDMTANRETVMGAMTCSKELDNSSYFRATCNDTGOQPS 210
DB 121 TNGAERYIDDAKAGDFOLREDMTANRETVMGAMTCSKELDNSSYFRATCNDTGOQPS 177
OY 211 QTHNKCRCDDKXGANKPKXAGDVTIVPTFYVPOYLRFMEFEMADFCRKKKKKLENE 270
DB 178 -TNGQCHC-----IGGD-----VPTFYVPOYLRFMEFEMADFCRKKKKKLENE 220
OY 271 LEKOCRGKDSDEYRYSRNGYDCEQTSRKGVKRMKGCTDCFPACGSYENWIDNOKRQ 330
DB 221 LQKCRDYEQN---LYSGNGYDCTKTYKKKGLVIEHCNCSVCMRYETWIDNOKKE 277
OY 331 FDKOKK 336
DB 278 FLKOKR 283
```

## RESULT 3

US-10-087-013-2  
Sequence 2, Application US/10087013  
Publication No. US20040062769A1

## GENERAL INFORMATION:

APPLICANT: Arthur Scherf

APPLICANT: Louis H. Miller

APPLICANT: Benoit Gamain

APPLICANT: Dior I. Baruch

APPLICANT: Pierre Buffet

APPLICANT: Christine Scheldig

APPLICANT: Jurg Gysin

APPLICANT: Bruno Bouvelle

APPLICANT: No. US20040062769A1

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

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APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

APPLICANT: Joseph Smith

Query Match 34.7%; Score 653; DB 4; Length 3542;  
 Best Local Similarity 40.9%; Pred. No. 4.2e-47;  
 Matches 147; Conservative 48; Mismatches 100; Indels 64; Gaps 15;

QY 1 PCKDKGK-----GNDVRFVSVEQAGYDNK---KMKCSNGMTCAFR 39  
 DB 87 PCNDHKHTLRLRYDVVNLRRHCHGRBQNRDEDESECGNKIRYKXK-NDALACAPR 145  
 QY 40 RLHL/CNKPFPNNNSNDSSKAKHDLAEVCMATYEGESI KTHYPKYSKTPGSDPFCMCTM 99  
 DB 146 RRMHCDKLEALNDINTONI-HDLGNVLYVAKYEGESIVNNHP-----HKGTS-DACTA 198  
 QY 100 LARSFADIGDIIRGRDLYLGKMKKKQKNGKETERELBQKLEIFKIHDLKDXKQKRY 159  
 DB 199 LARSFADIGDIIRGRDLYLGKMKKKQKNGKETERELBQKLEIFKIHDLKDXKQKRY 247  
 QY 160 NGDEDPNFYKLRBEDMTANRETVMGAMTCSKELDNSSYFRATCNDTGQSPGOTHNKCRCD 219  
 DB 248 NPDSGNVYKLRBAMMNVRNKKVMEALITCDASY-KSGYFMQSESMT---PLFSNPKC--- 300  
 QY 220 KDKGNAKGPAGDGDVTVPTYPYVPOYLRFWEFMAEDFCRKKKKLEMLEKQCRGKD 279  
 DB 301 ---GHKQCK-----VPTNLDYVPOYLRFWEFMAEDFCRKKKKLEMLEKQCRGKD 346  
 QY 280 KSDERYRCSRGYDCEQITSRKGVKMGKCTDCEFPAGSYENWIDNQRKQFDKQK-KY 337  
 DB 347 K--RLVCSHNGHDCITTIWKKGILHLNCKTCDSTCKKVFVWLNQOEAFFKQKERY 403

## RESULT 4

US-10-153-273-18  
 ; Sequence 18, Application US/10153273  
 ; Publication No. US20020169305A1

## GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

Chitnis, Chetan  
 Miller, Louis H.  
 Peterson, David S.  
 Su, Xin-zhaun  
 Wellens, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX

AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESS:

ADDRESSEE: Knobbe Martens Olson & Bear  
 STREET: 620 Newport Center Drive 16th Floor  
 CITY: Newport Beach  
 STATE: California

COUNTRY: US

ZIP: 92660

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/153,273

FILING DATE: 21-May-2002

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/09/210,288

FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:

NAME: Fuller, Michael

REGISTRATION NUMBER: 36,516

REFERENCE/DOCKET NUMBER: NIH121.1FWDV1

TELEPHONE: (619) 235-8550

TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 18:

SEQUENCE CHARACTERISTICS:

LENGTH: 362 amino acids

TYPE: amino acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 MOLECULE TYPE: peptide  
 HYPOTHETICAL: NO  
 ANTI-SENSE: NO  
 FRAGMENT TYPE: internal  
 ORIGINAL SOURCE:  
 SEQUENCE DESCRIPTION: SEQ ID NO: 18:  
 US-10-153-273-18

Query Match 20.1%; Score 379.5; DB 4; Length 362;  
 Best Local Similarity 31.3%; Pred. No. 1.7e-24;  
 Matches 93; Conservative 14; Mismatches 149; Indels 41; Gaps 5;

QY 35 CAPRRRLHL/CNKPFPNNNSNDSSKAKHDLAEVCMATYEGESI KTHYPKYSKTPGSDPFCMCTM 94  
 DB 2 CAPRRRLHL/CY---NLXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 58  
 QY 95 PCTMLARSFADIGDIIRGRDLYLG--NKKKQKNGKETERELBQKLEIFKIHDLKDXKQKRY 152  
 DB 59 QLCVTLARSFADIGDIIRGRDLYLGKMKKKQKNGKETERELBQKLEIFKIHDLKDXKQKRY 118  
 QY 153 KEAQKRYNGDEDPNFYKLRBEDMTANRETVMGAMTCSKELDNSSYFRATCNDTGQSPGOT 212  
 DB 119 XXXXXXXXGDD---FQGLRBDMTSNRETVMKALICHXXXXXXXXXXXXX----- 164  
 QY 213 HNKRCRDKKANAAGKPAAGDGVTVPTYPYVPOYLRFWEFMAEDFCRKKKKLEMLEKQCRGKD 272  
 DB 165 -----XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 214  
 QY 273 KQCRGKDKSDERYRCSRGYDCEQITSRKGVKMGKCTDCEFPAGSYENWIDNQRKQFDKQK-KY 329  
 DB 215 KQ-----CXKXXXXXKXXXXXXXXXXXXXXXXXXXXCTNCSVCMETIWDNRK 259

## RESULT 5

US-10-153-273-19  
 ; Sequence 19, Application US/10153273  
 ; Publication No. US20020169305A1

## GENERAL INFORMATION:

APPLICANT: Sim, Kim L.

Chitnis, Chetan  
 Miller, Louis H.  
 Peterson, David S.  
 Su, Xin-zhaun  
 Wellens, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX

AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37

CORRESPONDENCE ADDRESS:

ADDRESSEE: Knobbe Martens Olson & Bear  
 STREET: 620 Newport Center Drive 16th Floor  
 CITY: Newport Beach  
 STATE: California

COUNTRY: US

ZIP: 92660

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/153,273

FILING DATE: 21-May-2002

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/09/210,288

FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:

NAME: Fuller, Michael

REGISTRATION NUMBER: 36,516

REFERENCE/DOCKET NUMBER: NIH121.1FWDV1



US-10-153-273-4  
; Sequence 4, Application US/10153273  
; Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellems, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1435 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
US-10-153-273-4  
Query Match 14.9%; Score 281; DB 4; Length 1435;  
Best Local Similarity 23.1%; Pred. No. 3.8e-15;  
Matches 78; Conservative 44; Mismatches 101; Indels 114; Gaps 10;  
QY 10 DVDRFSV---KEQAGYDNKKKCKSGM-----TCADPRRLHLCNKPNNNSNDSSKA 59  
DB 453 DLDPSKFGCDKNSVDTKVWECKNPYILSTPKDVCVPRRQELDLGNIDRIYDKLMI 512  
QY 60 KHDLLAEVCMAMKAYGESIKTHYPKYDSKYPGSDPVMCTMLARSPADIGDIIIRGDLVIG 119  
DB 513 KEHILA-----IAIYSRILKRYKKRDKD-----EVCKIINKTPADIRDIIGTDYV-- 560  
QY 120 NKKKKQNGKETEREKLEQKLKEIIPKKIHDLKDKKQKRYNGDEDPNPFYKLAEDVMTANR 179  
DB 561 -----NDLSNRLLVGKINTNSKYVHRNKKNDKL-----FDEWVKYIK 598  
QY 180 ETVWGMATCSKELDNSSYFRATCNDTGGQSPSOTNAKCRCDKXKANAGKPKAGDGDVTV 239  
DB 599 KDVNVVI-----SWVFK-----DKTVCKEDDIEN----- 622  
QY 240 PTFYFVVPQYLKWFEBWABDFCRKKKKLENLKQCRGDKADDEVRYCSRNGYDCEQTIS 299

DB 623 -----IPQFRFMSEMGDDYCDQTKTKMIEITLKVECKEKPCEDD----- 660  
QY 300 RKGVRBMGKGCTDCFPAGCSYENWIDNRKQFDRQK 336  
DB 661 -----NCKSKCNSTYKEMISKKEEYRNOAK 685  
RESULT 9  
US-10-153-273-6  
; Sequence 6, Application US/10153273  
; Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellems, Thomas E.  
TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176  
INFORMATION FOR SEQ ID NO: 6:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 749 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
US-10-153-273-6  
Query Match 14.9%; Score 280.5; DB 4; Length 749;  
Best Local Similarity 24.8%; Pred. No. 1.9e-15;  
Matches 80; Conservative 42; Mismatches 90; Indels 111; Gaps 14;  
QY 22 YDNKKMKCSNGMTAPFRRLH.C-NKNPNNNSNDSSKAKDILLAECMAKYGESIKT 80  
DB 128 YSNKVTPEGV-CGPRRQQLCGIYIFLIDGNVEEGKDH-----INKRANYEAMHLKE 181  
QY 81 HYPKYDSKYPGSDPVMCTMLARSPADIGDIIIRGDLVIGNKKKKQNGKETEREKLEQKLK 140  
DB 182 KY-----ENAGGD-KICNALIGSYADIGDIVRGDLVW-----RDINTNKLSEKFO 225

```

Query Match 80.1%; Score 280.5; DB 3; Length 1086;
Best Local Similarity 24.8%; Pred. No. 36-15;
Matches 80; Conservative 42; Mismatches 90; Indels 111; Gaps 14.

QY      22 YDNKKMKSCNGMTCAPFRRLHC-NKNFPNNNSNDSSKAKHDLAEVCMARYEGESIKT 80
Db      370 YSNKKVTKPEGV-CGPFRPQQCLGYIFLRDNGEGLKDH-----INKAANYEAMHLE 423

QY      81 HYPKDSKYPGSDPFMCCTMLARSPADIGDIINGRLYLGNKKKKONGKETEKEKEFOKL 140
Db      424 KY-----ENAGGD-RICNAILGTSYADIGDIVGLVW-----RDINTNKLSEKFO 467

QY      141 EIFFKIHNLKQKEXOKRYNGEDENFYLRJEDMWTANRETYWAMTCSKELDNSSYPRA 200
Db      468 KIF-----MGGSNRKKQNDYNE-----RKNMHEKQNLIMSSNV-KHLPKGR---- 509

QY      201 TCNDTGGSPSQTHNKCRCDDKDGANAGKPKAGDGVITVPTFYEDYVPOYLRFEEWAEDF 260
Db      510 TC-----KHHNN-----FEKIPQFLRLKEMGBEF 534

QY      261 CRKKKKLLENLEKCRGCKDKSDERYICSRNGYDCQGTISRKKKVMGKGCTDCCFACGSY 320
Db      535 CEEMGTLEVQLEKICENKNCSEK-----KCNKACSSY 566

QY      321 ENWIDN-----ORKOPDKOKK 336
Db      567 ERMITERKKNVYLOSKEKFDSDKK 589

```

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RESULT 12
US-10-293-913A-2
; Sequence 2, Application US/10293913A
; Publication No. US20040022805A1
; GENERAL INFORMATION:
; APPLICANT: Narum, David
; APPLICANT: Liang, Hong
; APPLICANT: Fuhrmann, Steve
; APPLICANT: Sim, B. Kim Lee
; TITLE OF INVENTION: Synthetic Genes for Malarial Proteins and Methods of Use
; FILE REFERENCE: 05213-0464 (43170-28026)
; CURRENT APPLICATION NUMBER: US/10/293,913A
; CURRENT FILING DATE: 2002-11-12
; PRIOR APPLICATION NUMBER: US 60/345,051
; PRIOR FILING DATE: 2001-11-09
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
; LENGTH: 616
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic EBA-175 RII
US-10-293-913A-2

```

Query Match 14.3%; Score 269; DB 4; Length 616;  
Best Local Similarity 23.2%; Pred. No. 1.5e-14;  
Matches 79; Conservative 43; Mismatches 98; Indels 120; Gaps 11;

QY 10 DVDRFSVKEQAGYD-----NKKMKCSNGMTCAPFRLHLCKNKPMMNSNDS 56  
DB 309 DLDDPS--KFGCDKNSVDITNTKWECKKPYKLTQKVCVPPRROELCLGNIDRIYDNL 365  
QY 57 SKAHDLLAEVCMATKESGSIKTHYPKYSKSGSDPMTMLARSPADIGDIIRGRDL 116  
DB 366 LMIKEHILA---IAIYSRILKRRYKKNKDK-----EVCKIKTKFADIRDIIGTDY 415  
QY 117 YLGNKKKKKQNGKETEREKLEOKLEIFPKKIHNLKDKAQRKRYNGDEDPNFYKLRDPMWT 176  
DB 416 W-----NDLSNRLVKGKINTNSNYVARN--KQNDLTF-----RDEWKK 451  
QY 177 ANRETWGAMTCSKELDNSSYFRATCNDTGQPSQTHNKKRCQDKKGNAGKAPKAGDGV 236  
DB 452 VIKKDVNVI-----SWVFK-----DKTVCKEDDEN----- 478  
QY 237 TIVPTYPDYVPOYLRFMEEMADPCKRKKKLEMLEKCRGKDKSDERYCSRNGYDCEQ 296  
DB 479 -----IPQFRWSEMGDDYCQDKTKMIETLKVECKEKPCBED----- 516  
QY 297 TISRKGVRMGKCTDCFPACSGYENMIDNQKQFDKQK 336  
DB 517 -----NCKRKNYSKEMISKKEEYNNQAK 541

RESULT 13  
US-09-924-154-13  
Sequence 13, Application US/09924154  
Patent No. US20020127241A1  
GENERAL INFORMATION:  
APPLICANT: Natum, David L.  
APPLICANT: Sim, Kim L.  
TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use  
FILE REFERENCE: 05213-0465 43170-262105  
CURRENT APPLICATION NUMBER: US/09/924.154  
CURRENT FILING DATE: 2001-08-07  
PRIOR APPLICATION NUMBER: US 60/223,525  
PRIOR FILING DATE: 2000-08-07  
NUMBER OF SEQ ID NOS: 17  
SOFTWARE: Patentin version 3.1  
SEQ ID NO 13  
LENGTH: 1421  
TYPE: PRT  
ORGANISM: Mammalian  
US-09-924-154-13

Query Match 14.3%; Score 269; DB 3; Length 1421;  
Best Local Similarity 23.2%; Pred. No. 4.2e-14;  
Matches 79; Conservative 43; Mismatches 98; Indels 120; Gaps 11;

QY 10 DVDRFSVKEQAGYD-----NKKMKCSNGMTCAPFRLHLCKNKPMMNSNDS 56  
DB 453 DLDDPS--KFGCDKNSVDITNTKWECKKPYKLTQKVCVPPRROELCLGNIDRIYDNL 509  
QY 57 SKAHDLLAEVCMATKESGSIKTHYPKYSKSGSDPMTMLARSPADIGDIIRGRDL 116  
DB 510 LMIKEHILA---IAIYSRILKRRYKKNKDK-----EVCKIKTKFADIRDIIGTDY 559  
QY 117 YLGNKKKKKQNGKETEREKLEOKLEIFPKKIHNLKDKAQRKRYNGDEDPNFYKLRDPMWT 176  
DB 560 W-----NDLSNRLVKGKINTNSNYVARN--KQNDLTF-----RDEWKK 595  
QY 177 ANRETWGAMTCSKELDNSSYFRATCNDTGQPSQTHNKKRCQDKKGNAGKAPKAGDGV 236  
DB 596 VIKKDVNVI-----SWVFK-----DKTVCKEDDEN----- 622  
QY 237 TIVPTYPDYVPOYLRFMEEMADPCKRKKKLEMLEKCRGKDKSDERYCSRNGYDCEQ 296  
DB 623 -----IPQFRWSEMGDDYCQDKTKMIETLKVECKEKPCBED----- 660

QY 297 TISRKGVRMGKCTDCFPACSGYENMIDNQKQFDKQK 336  
DB 661 -----NCKRKNYSKEMISKKEEYNNQAK 685

RESULT 14  
US-10-153-273-8  
Sequence 8, Application US/10153273  
Publication No. US20020169305A1  
GENERAL INFORMATION:  
APPLICANT: Sim, Kim L.  
Chitnis, Chetan  
Miller, Louis H.  
Peterson, David S.  
Su, Xin-zhaun  
Wellems, Thomas E.

TITLE OF INVENTION: BINDING DOMAINS FROM PLASMODIUM VIVAX  
AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS

NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Knobbe Martens Olson & Bear  
STREET: 620 Newport Center Drive 16th Floor  
CITY: Newport Beach  
STATE: California  
COUNTRY: US  
ZIP: 92660

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/153,273  
FILING DATE: 21-May-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/210,288  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Fuller, Michael  
REGISTRATION NUMBER: 36,516  
REFERENCE/DOCKET NUMBER: NIH121.1FWDV1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (619) 235-8550  
TELEFAX: (619) 235-0176

INFORMATION FOR SEQ ID NO: 8:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 921 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
HYPOTHETICAL: NO  
ORIGINAL SOURCE:  
ORGANISM: Plasmodium falciparum  
SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
US-10-153-273-8

Query Match 12.8%; Score 241; DB 4; Length 921;  
Best Local Similarity 26.1%; Pred. No. 6.7e-12;  
Matches 84; Conservative 43; Mismatches 119; Indels 76; Gaps 17;

QY 23 DNKKMKCSNGMTCAPFRLHLCKNKPMMNSNDSKAKHDLAEVCMATKESGSIKTHY 82  
DB 427 DESKIKMGQAGACIPRRQKLCIHYLEKIMTN-TNEIKYAFIK--CAA--ETPLWQNY 481  
QY 83 PK-----YDSKSPSDP--MCTMLARSPADIGDIIRGRDYLGNKKKKQNGKETER 132  
DB 482 KQDKNGAEDLDEKLGKGIIPEDFKROMFYTFADYRDCIGTDI-----SSKQTSKGV-- 535  
QY 133 EKLEQKLEIFPKKIHNLKDKAQRKRYNGDEDPNFYKLRDPMWTANRETWGAMTCSKEL 192  
DB 623 -----IPQFRWSEMGDDYCQDKTKMIETLKVECKEKPCBED----- 660

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Db      536 GKVKCNIDVYFKISNSI-----RY-----RKSWMETNGVITWEGMLCALSY 577
QY      193 DNSSYFRATCNDTGGSPSOTNKKCRCDKGNAGKPKAGDGYTIVTFYFVYPOYLRLW 252
Db      578 DTS-----LNNVA---PETHKL-----TBGNNNPEKVIPIGSDSSSTLSKFSERQFLRW 624
QY      253 FEEMAEDFCRKKKKLLENLEKOCRGKDKSDERYCSRNNGYDCEOTISRKGRVMMKGCTD 312
Db      625 LTEWGENFCKEKKYKVLAKCK-----DCD--VDGDKCN-GK-CVA 664
QY      313 CFPAAGSYEN-----WIDNRKO 330
Db      665 CKDQCKQYHSWIGIWDNYKKQ 686
```

## RESULT 15

```
US-09-924-154-16
; Sequence 16, Application US/09924154
; Patent No. US20020127241A1
; GENERAL INFORMATION:
; APPLICANT: Narum, David L.
; APPLICANT: Sim, Kim L.
; TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use
; FILE REFERENCE: 05213-0465 43170-262105
; CURRENT APPLICATION NUMBER: US/09/924,154
; PRIOR FILING DATE: 2001-08-07
; PRIOR APPLICATION NUMBER: US 60/223,525
; PRIOR FILING DATE: 2000-08-07
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Patent version 3.1
; SEQ ID NO 16
; LENGTH: 972
; TYPE: PRT
; ORGANISM: Mammalian
US-09-924-154-16
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Query Match      12.5%; Score 235; DB 3; Length 972;
Best Local Similarity 25.3%; Pred. No. 2.4e-11;
Matches 88; Conservative 40; Mismatches 114; Indels 106; Gaps 16;
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QY      2 CKKQCKNDVDRFSYKQAGYDNKKKCSNGM-----TCAPFRRLHLCNKNFPR--MN 52
Db      138 CKE--KGND-----KIWQICINEHIKDFPVCGPFRQQLCLGNLDKDFKN 181
QY      53 SNDSSKAGHDLAEVCMAYKEGSEIKTHYPK--YDSKYPGSDPMTMLARSFADIGDI 110
Db      182 VNDLKK---FLNEIILIGIRDEGKFLIKYRKMMHNNY--LDERACKYIANSFDDYKNI 235
QY      111 IGRBDLYGNKKKKQKQKETEREKLEQKLKEIFKKIHNLKDKEAQKRYNGDEDEPNFYKL 170
Db      236 ILGKDM-----RDPNSIKTENILKGNFEGIKANI-----VSMYPSYADLSLDEF 280
QY      171 REDWMTANRETYWGMATSKELDSSYFRATCNDTGGSPSOTNKKCRCDKGNAGKPK 230
Db      281 RKHWWDDQNKQIWEAISC-----EFYKG--NHTG-----VCLMEDDND----- 316
QY      231 AGDGDVTVTFYFVDPVPOYLRLWFEEMAEDFCRKKKKLLENLEKOCRGKDKSDERYCSRN 290
Db      317 -----NOYLHWFREWKNDPCLDKLKNWDVYKEPC--IDKKYKSPKPSEN 358
QY      291 GYDCEQITSRKGRVMMKGCTDCFPAGCSYENMWIDNRKQFDKQ--KKY 337
Db      359 PSDV-----ATVCNKSCTDYDKMIINRKRREYMGSSKY 391
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Search completed: December 29, 2005, 23:40:13  
Job time : 38.7534 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: December 29, 2005, 23:15:22 ; Search time 2.14866 Seconds  
(without alignments)  
1174.559 Million cell updates/sec

Title: US-09-508-967-1\_COPY\_79\_415

Perfect score: 1884

Sequence: 1 PCKKDGKGNVDVDFSVYKEQA.....GSYENWIDNRKQFDKQKXY 337

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 57103 seqs, 7488799 residues

Total number of hits satisfying chosen parameters: 57103

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications AA New:\*

1: /cgn2\_6/ptodata/2/pubpaa/US08\_NEM\_PUB.pep:\*  
2: /cgn2\_6/ptodata/2/pubpaa/US06\_NEM\_PUB.pep:\*  
3: /cgn2\_6/ptodata/2/pubpaa/US07\_NEM\_PUB.pep:\*  
4: /cgn2\_6/ptodata/2/pubpaa/PCT\_NEM\_PUB.pep:\*  
5: /cgn2\_6/ptodata/2/pubpaa/US09\_NEM\_PUB.pep:\*  
6: /cgn2\_6/ptodata/2/pubpaa/US10\_NEM\_PUB.pep:\*  
7: /cgn2\_6/ptodata/2/pubpaa/US11\_NEM\_PUB.pep:\*  
8: /cgn2\_6/ptodata/2/pubpaa/US60\_NEM\_PUB.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	101	5.4	1142	US-11-109-156-22	Sequence 22, Appl
2	98	5.2	454	US-11-089-551A-35	Sequence 35, Appl
3	93.5	5.0	1238	US-11-078-735-21	Sequence 21, Appl
4	89.5	4.8	436	US-10-131-826A-404	Sequence 404, App
5	85.5	4.5	369	US-11-078-735-38	Sequence 38, Appl
6	85.5	4.5	484	US-11-078-735-43	Sequence 43, Appl
7	85.5	4.5	558	US-10-512-109-11	Sequence 11, Appl
8	85.5	4.5	723	US-10-131-826A-346	Sequence 346, App
9	85.5	4.5	723	US-11-078-735-17	Sequence 17, Appl
10	82	4.4	557	US-10-512-109-9	Sequence 9, Appl
11	82	4.4	646	US-10-491-096-190	Sequence 190, App
12	82	4.4	785	US-11-109-157A-6	Sequence 6, Appl
13	82	4.4	1076	US-11-109-157A-5	Sequence 5, Appl
14	82	4.4	1907	US-11-039-398-25	Sequence 25, Appl
15	82	4.4	4655	US-10-995-561-556	Sequence 556, App
16	81.5	4.3	322	US-11-073-605-4	Sequence 4, Appl
17	81.5	4.3	364	US-10-131-826A-186	Sequence 186, App
18	81.5	4.3	370	US-11-073-605-2	Sequence 2, Appl
19	81.5	4.3	370	US-11-073-605-14	Sequence 14, Appl
20	81.5	4.3	2004	US-10-467-657-84	Sequence 84, Appl
21	81.5	4.3	2004	US-10-467-657-84	Sequence 84, Appl
22	81	4.3	654	US-10-770-726-82	Sequence 82, Appl
23	80.5	4.3	468	US-10-131-826A-90	Sequence 90, Appl
24	80.5	4.3	468	US-11-102-240-150	Sequence 150, App
25	80	4.2	531	US-11-060-914-4	Sequence 4, Appl

26	79.5	4.2	963	US-10-467-962B-2	Sequence 2, Appl
27	79.5	4.2	1976	US-11-069-834-52	Sequence 52, Appl
28	79.5	4.2	2897	US-10-499-715-2	Sequence 2, Appl
29	79	4.2	208	US-10-793-626-694	Sequence 694, App
30	79	4.2	208	US-10-793-626-1326	Sequence 1326, App
31	79	4.2	331	US-11-078-735-33	Sequence 33, Appl
32	79	4.2	332	US-11-078-735-51	Sequence 51, Appl
33	79	4.2	402	US-10-485-517-422	Sequence 422, App
34	78.5	4.2	1218	US-11-078-735-20	Sequence 20, Appl
35	78	4.1	2515	US-11-113-424-53	Sequence 53, Appl
36	77	4.1	315	US-10-878-556A-178	Sequence 178, App
37	77	4.1	333	US-10-821-234-1036	Sequence 1036, App
38	76.5	4.1	667	US-10-821-234-1477	Sequence 1477, App
39	76.5	4.1	693	US-10-873-528-185	Sequence 185, App
40	76	4.0	989	US-10-793-626-2594	Sequence 2594, App
41	76	4.0	2214	US-11-080-991-54	Sequence 94, Appl
42	75.5	4.0	1976	US-11-069-834-54	Sequence 54, Appl
43	75.5	4.0	472	US-10-793-626-1902	Sequence 1902, App
44	74.5	4.0	655	US-10-793-626-1052	Sequence 1052, App
45	74.5	4.0	655	US-10-793-626-1400	Sequence 1400, App

## ALIGNMENTS

RESULT 1  
US-11-109-156-22  
Sequence 22, Application US/11109156  
Publication No. US20050250144A1  
GENERAL INFORMATION:  
APPLICANT: Toshio Ota  
APPLICANT: Takao Isogai  
APPLICANT: Tetsuo Nishikawa  
APPLICANT: Koji Hayashi  
APPLICANT: Kaoru Otsuka  
APPLICANT: Jun-ichi Yamamoto  
APPLICANT: Shizuko Ishii  
APPLICANT: Tomoyasu Sugiyama  
APPLICANT: Ai Wakamatsu  
APPLICANT: Keiichi Nagai  
APPLICANT: Tetsuji Otsuki  
APPLICANT: Shin-ichi Funahashi  
APPLICANT: Chiaki Senoo  
APPLICANT: Jun-ichi Nezu  
TITLE OR INVENTION: NOVEL GENES ENCODING PROTEIN KINASE/PROTEIN  
FILE REFERENCE: 06501-099002  
CURRENT APPLICATION NUMBER: US/11/109,156  
CURRENT FILING DATE: 2005-04-19  
PRIOR APPLICATION NUMBER: US/10/060,065  
PRIOR FILING DATE: 2002-01-29  
PRIOR APPLICATION NUMBER: PCT/JP00/05061  
PRIOR FILING DATE: 2000-07-28  
PRIOR APPLICATION NUMBER: US 60/159,590  
PRIOR FILING DATE: 1999-10-18  
PRIOR APPLICATION NUMBER: US 60/183,322  
PRIOR FILING DATE: 2000-02-17  
PRIOR APPLICATION NUMBER: JP 11-248036  
PRIOR FILING DATE: 1999-07-29  
PRIOR APPLICATION NUMBER: JP 2000-118776  
PRIOR FILING DATE: 2000-01-11  
PRIOR APPLICATION NUMBER: JP 2000-183767  
PRIOR FILING DATE: 2000-05-02  
PRIOR APPLICATION NUMBER: JP 2000-241899  
PRIOR FILING DATE: 2000-06-09  
NUMBER OF SEQ ID NOS: 43  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 22  
LENGTH: 1142  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-11-109-156-22



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Query Match      5.4%; Score 101; DB 7; Length 1142;
Best Local Similarity 22.9%; Pred. No. 0.67;
Matches 81; Conservative 40; Mismatches 74; Indels 158; Gaps 25;

Qy 24 NKKKCSNGMTCCAPRRRLHLCN-----KNFPNNNSNSKAKHDLAIVCMAYKESG-- 75
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 214 NKSIRORRLLT-----RRINNVPKDLKEFPNNKTTICDSSVSTHDL-----KXYRLATL 262
Qy 76 ESIKTHYPKYSKYPGSDPFMCTMLAR3FA-----DIGDILRGRLYIGNK-----K 122
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 263 ETLTGHY-----GALIFETSMLLISENEMMFHSDGNVLYEVMTGNLGIOWR 314
Qy 123 KKQNGKTEREKLBOKLKIFPKIHDLKDXEAQRRYNGDEDPFYKJREDPMWTAN----- 178
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 315 HKPNVSVYKKEK--NKLKR--KJLEN--KDKX-----DESKN--KIREMNFFSFPPE 359
Qy 179 -----RETVGAMTCSKELN-----SSYFRAT-----CNDT 205
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 360 ITHIVIKESV---VSINQ--DNKKMELKLSHEBALSVSLVDGFRLTAADAHYLCIDV 415
Qy 206 G-----OGPSQTH--NKCRCDDKKGANAGPKAGDGVITVTFYFVPOYL 250
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 416 APPLVHNIGQCHGPICTEYAINLKR--QBSSEGM-----YV---L 453
Qy 251 RWFEBMADF-----CRKKKKLLENLEKQCR-----GDKDS 281
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 454 RMS---CTDFNIIIMLTVTCFEKSEBOVQAKQFKFQIEVQKGRYLSHSDRS 503

RESULT 2
US-11-089-551A-35
; Sequence 35, Application US/11089551A
; Publication No. US20050266242A1
; GENERAL INFORMATION:
; APPLICANT: Lindquist et al.
; TITLE OF INVENTION: ELECTRICAL CONDUCTORS AND DEVICES FROM PRION-LIKE PROTEINS
; FILE REFERENCE: 30554/40025A
; CURRENT APPLICATION NUMBER: US/11/089,551A
; PRIOR FILING DATE: 2005-03-24
; PRIOR APPLICATION NUMBER: US 60/559,286
; PRIOR FILING DATE: 2004-03-31
; NUMBER OF SEQ ID NOS: 65
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 35
; LENGTH: 454
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae
US-11-089-551A-35

Query Match      5.2%; Score 98; DB 7; Length 454;
Best Local Similarity 20.2%; Pred. No. 0.4;
Matches 72; Conservative 35; Mismatches 128; Indels 122; Gaps 17;

Qy 3 KKKQKGNVDRFS---YKEQAGYDNKKMKCSNGMTCCAPRRRLHLCNCFRNMNSN---- 54
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 57 KATDKANDTKYXSNDKSKRSANSNDKDC-----RTTNDMTTRYDSKSKRYT 104
Qy 55 --DSSKAGHDLLAEVCMAYKEGESI-KTHYPKYDSKYPGSDPFMCTMLAR3FADIGDI 111
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 105 NCDHKAASHSM-----KTKKASVDKDHMKDSSYKAS-----KNSHNYST--NTM 149
Qy 112 RGRDLY---LGNKKKKQNGKTEREKLBOKLKIFPKIHDLKDXEAQRRYNGDEDPNF 167
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 150 NKMDVYTKANMANKKK-----SDTSTWKKKSKSHSVYN-----NDKSKTKYVNDSDDD 199
Qy 168 YKLREDMTATARETYGAMTCSKELDSSYFRATNDTGQSPSQTHN-----KCR 217
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 200 NNVNNDNNNN-----NKDNDNDNDNNNDTSNNNNNNNNRKNRNNRDMWTKTKCT 249
Qy 218 CDKDKGANAGPKAGDGVITVTFYFVPOYLRFEBMADFCKKKKKLLENLEKQORG 277
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 250 DMNDGRDNNNK-----NDMANNDKNYNNVNRK--- 277

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Qy 278 KDKSDERYCSRNGCYDEQIT-----SRKGVNMGKCTDCCFACSYEMIDNQRK 329
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 278 NHKSS-----GRDDYSANNAVNSTHASNKNVNDMNN-----DTYKNTDTNKK 321

RESULT 3
US-11-078-735-21
; Sequence 21, Application US/11078735
; Publication No. US20050261477A1
; GENERAL INFORMATION:
; APPLICANT: CHAMPION, BRIAN ROBERT
; APPLICANT: LENNARD, ANDREW CHRISTOPHER
; APPLICANT: MCKENZIE, GRAHAM JAMES
; APPLICANT: TUDAL, TAMARA
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS AND MEDICAL TREATMENTS
; FILE REFERENCE: 674525-2019
; CURRENT APPLICATION NUMBER: US/11/078,735
; PRIOR FILING DATE: 2005-03-10
; PRIOR APPLICATION NUMBER: PCT/GB03/03908
; PRIOR FILING DATE: 2003-09-09
; PRIOR APPLICATION NUMBER: PCT/GB03/03285
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: PCT/GB03/01525
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: GB 0300234.2
; PRIOR FILING DATE: 2003-01-07
; PRIOR APPLICATION NUMBER: PCT/GB02/05137
; PRIOR FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: PCT/GB02/05133
; PRIOR FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: GB 0220912.0
; PRIOR FILING DATE: 2002-09-10
; PRIOR APPLICATION NUMBER: GB 0220913.8
; PRIOR FILING DATE: 2002-09-10
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 21
; LENGTH: 1238
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-078-735-21

Query Match      5.0%; Score 93.5; DB 7; Length 1238;
Best Local Similarity 19.9%; Pred. No. 3.1;
Matches 39; Conservative 25; Mismatches 65; Indels 67; Gaps 9;

Qy 175 WTANRETVGAMTCSKELD-----NSSYFRATCNTDGGPSQTHNKKR 217
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 291 WQNCETNWGGLCDKDLNCGSHHPCTNGGTCINAEPPDYRCTCPGYSGRN----- 343
Qy 218 CDKDKGANAGPKAGDGVITVTFYFVPOYLRF-----FEBMADFCKKKKKL 268
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 344 CEKKEHACTSNPCANGSGCHEVPSGFECHEPS--GMSGPTCALDIDICASIPCAAGTGV 401
Qy 269 ENLE-----KQCRGKDKSDERY-----YC---SRNGYDEQIT 297
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 402 DQVQGFRCICPEQWVGATCOLDANBCEGKPCINAFSCKNLIGYCDICIPGMKINGCHIN 461
Qy 298 ISR-KGVNMGKCTD 312
  ||::||::||::||::||::||::||::||::||::||::||::||::||::||::||
Db 462 VNDCRGQCHGCTCKD 477

RESULT 4
US-10-131-826A-404
; Sequence 404, Application US/10131826A
; Publication No. US20050245730A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Beresini, Maureen
; APPLICANT: Deforge, Laura
; APPLICANT: Deenoysers, Luc

```

	Query Match	4.8%	Score 89.5;	DB 6;	Length 436;
	Best Local Similarity	18.8%	Pred No. 1.97	Mismatches 136;	Indels 101; Gaps 15
	Matches	66;	Conservative	48;	
Qy	18	EAGADYNNKKMKCSNGMTGAPFRRLHLCNKNPEPM--NSNDSKAKHDLLEVCMAAYKE	74		
	:	:::::	:	:	:
Db	122	KEAGVDHQMGPIILSTCKQ-----CPVYYSFVGSGDHHTYSPQCETLEYQAVCLGKD	175		
	:	:	:	:	:
Qy	75	GESIKTHYPKIDSKYPSDFPMCTMLAASFADIGIINGRDLYLGNKKKKKKQNGKETERXK	134		
	:	:	:	:	:
Db	176	SVKCGHGHP-----CPSDKPTST-----SRNVKRAACSLDIFRE	208		
	:	:	:	:	:
Qy	135	LEQLTKELFKKIHD--NLKHDAOKRYNGEDENPFYKLRED--WNTANR-ETVMGAMT	187		
	:	:	:	:	:
Db	209	VANRLIRDFPKALHESGSQNKTKYLLRPBRSRFTSILPTCDOSLGMGFNRJLDITVDDL-	267		
	:	:	:	:	:
Qy	188	CSKELDNSSYPFATCNTDTGGQSQTGNKRCRCPKDKGANAGKPKAGDGVTIVPTFDVP	247		
	:	:	:	:	:
Db	268	----LDGELSAIYLDKNEOCTRKAFFNSGDITYKDS-----	298		
	:	:	:	:	:
Qy	248	QYLRWFEEWAEDCFRK---KKKLENIEKOGKRGKSDEY-RYCSRNGY---DCEQT-	297		
	:	:	:	:	:
Db	299	--LIENNMCYCFOHQDDPCCOTELTSINIOKRQGKVKLGLGYPLDCDEDGYKPTQCHGSV	356		
	:	:	:	:	:
Qy	238	-----ISKKGKVRMG---KGCYDGF-----FACGSVENNIIDNQKQFD	332		
	:	:	:	:	:
Db	357	GQCWCVDYRAGNEWGSRINGVADCAIDFEISGDFASFGFHETWDDEDD	407		

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Query March          4.5%; Score 85.5; DB 7; Length 369;
Best Local Similarity 28.6%; Pred.No.3.4;
Matches      20; Conservative    10; Mismatches     23; Indels   17; Gaps     3

OY      175 WTANRETYGAGMTCSKELDNSSYFR-----ATCNDTGOG-----PSQTHNKC-----R 217
        ||| | :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
DB      272 WQNCQGSEMGGLFCNQDLNTCYTHHPCRNKGATCTNTGGSYTSCSRCPGTGATCELGLIDE 331
        ||| | :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||

OY      218 CDXDKGANAG 227
        ||| | :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
DB      332 CDPSPCKNGG 341

RESULT 6
US-11-078-735-43
; Sequence 43, Application US/11078735
; Publication No. US20050261477A1

GENERAL INFORMATION:
APPLICANT: CHAMPTON, BRIAN ROBERT
APPLICANT: LENNARD, ANDREW CHRISTOPHER
APPLICANT: MCKENZIE, GRAHAM JAMES
APPLICANT: TUGAL, TANARA

TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS AND MEDICAL TREATMENTS
TITLE OF INVENTION: COMPRISING NOTCH LIGAND PROTEINS
FILE REFERENCE: 674525-2019
CURRENT APPLICATION NUMBER: US/11/078,735
CURRENT FILING DATE: 2005-03-10
PRIOR APPLICATION NUMBER: PCT/GB03/03908
PRIOR FILING DATE: 2003-09-09
PRIOR APPLICATION NUMBER: PCT/GB03/03285

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PRIOR FILING DATE: 2003-08-01  
PRIOR APPLICATION NUMBER: PCT/GB03/01525  
PRIOR FILING DATE: 2003-04-04  
PRIOR APPLICATION NUMBER: GB 0300234.2  
PRIOR FILING DATE: 2003-01-07  
PRIOR APPLICATION NUMBER: PCT/GB02/05137  
PRIOR FILING DATE: 2002-11-13  
PRIOR APPLICATION NUMBER: PCT/GB02/05133  
PRIOR FILING DATE: 2002-11-13  
PRIOR APPLICATION NUMBER: GB 0220912.0  
PRIOR FILING DATE: 2002-09-10  
PRIOR APPLICATION NUMBER: GB 0220913.8  
PRIOR FILING DATE: 2002-09-10  
NUMBER OF SEQ ID NOS: 51  
SOFTWARE: Patent In Ver. 3.3  
SEQ ID NO 43  
LENGTH: 484  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
OTHER INFORMATION: protein construct  
US-11-078-735-43

Query Match 4.5%; Score 85.5; DB 7; Length 484;  
Best Local Similarity 28.6%; Pred. No. 4.6;  
Matches 20; Conservative 10; Mismatches 23; Indels 17; Gaps 3;

OY 175 WTANRETVGAMTCKEIDNSYFR-----ATCNDTGG-----PSQTNNK-----R 217  
DB 272 WQNCQBEWGMGLFCNQDLYNCTHHKPCXGATCTNTGGSYTSCRPYGTATCGLGIDE 331  
OY 218 CDKXGANA 227  
DB 332 CDPSPCKNG 341

RESULT 7  
US-10-512-109-11  
Sequence 11, Application US/10512109  
Publication No. US20050255546A1  
GENERAL INFORMATION:  
APPLICANT: KIRIN BEER KABUSHIKI KAISHA  
TITLE OF INVENTION: POLYPEPTIDE HAVING AN ACTIVITY TO SUPPORT PROLIFERATION OR SURVIVAL  
TITLE OF INVENTION: OF HEMATOPOIETIC STEM CELL OR HEMATOPOIETIC PROGENITOR CELL, AND  
FILE REFERENCE: 905W010P1572  
CURRENT APPLICATION NUMBER: US/10/512,109  
CURRENT FILING DATE: 2004-10-21  
PRIOR APPLICATION NUMBER: US 60/376,001  
PRIOR FILING DATE: 2002-04-26  
NUMBER OF SEQ ID NOS: 49  
SOFTWARE: Patent In version 3.0  
SEQ ID NO 11  
LENGTH: 558  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-512-109-11

Query Match 4.5%; Score 85.5; DB 6; Length 558;  
Best Local Similarity 24.1%; Pred. No. 5.5;  
Matches 45; Conservative 32; Mismatches 63; Indels 47; Gaps 11;

OY 14 PSYKE--QAGYNNKKMK--CSNGMTCAPR--RIHLCKNKPNNNS--NDSXAKHDLAEV 67  
DB 44 FSLSVPAQAEISGEHLRCPGGYTCTSEMEENLNRSIALETALRDSRVLAQMLAT- 102  
OY 68 CMAAYEGESIKTHYPKY--DSK-----YPSDPPMCTMLARSFADIGDI--RGRD 115  
DB 103 -----QARSPFDHQLHLNDSERTLOATFPAGFELTYONARARLDLYSELRLYRQAN 156  
OY 116 LYLGNKKKKKONGKETEREKLEQKLEIFKKIHNT-----KQEAQKRYNGDD 164

DB 157 LHL-----BETLAEPWALIERLFKQLHPOLLPPDYLDCLGQKQAEALRPF--EA 205  
OY 165 PNFYKLR 171  
DB 206 PRELRLR 212

RESULT 8  
US-10-131-826A-346  
Sequence 346, Application US/10131826A  
Publication No. US20050245730A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin P.  
APPLICANT: Beresini, Maureen  
APPLICANT: Deforge, Laura  
APPLICANT: Desnoyers, Luc  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerritsen, Mary B.  
APPLICANT: Goddard, Audrey  
APPLICANT: Godowski, Paul J.  
APPLICANT: Gurney, Austin L.  
APPLICANT: Sherwood, Steven  
APPLICANT: Smith, Victoria  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Watanabe, Colin K  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
FILE REFERENCE: P3330R1C128  
CURRENT APPLICATION NUMBER: US/10/131,826A  
CURRENT FILING DATE: 2002-04-24  
PRIOR APPLICATION NUMBER: 60/049911  
PRIOR FILING DATE: 1997-06-18  
PRIOR APPLICATION NUMBER: 60/056974  
PRIOR FILING DATE: 1997-08-26  
PRIOR APPLICATION NUMBER: 60/059113  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/059115  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/059117  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/059122  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/059184  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/059263  
PRIOR FILING DATE: 1997-09-18  
PRIOR APPLICATION NUMBER: 60/059352  
PRIOR FILING DATE: 1997-09-19  
PRIOR APPLICATION NUMBER: 60/059588  
PRIOR FILING DATE: 1997-09-19  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 550  
SEQ ID NO 346  
LENGTH: 723  
TYPE: PRT  
ORGANISM: Homo Sapien  
US-10-131-826A-346

Query Match 4.5%; Score 85.5; DB 6; Length 723;  
Best Local Similarity 28.6%; Pred. No. 7.4;  
Matches 20; Conservative 10; Mismatches 23; Indels 17; Gaps 3;

OY 175 WTANRETVGAMTCKEIDNSYFR-----ATCNDTGG-----PSQTNNK-----R 217  
DB 272 WQNCQBEWGMGLFCNQDLYNCTHHKPCXGATCTNTGGSYTSCRPYGTATCGLGIDE 331  
OY 218 CDKXGANA 227  
DB 332 CDPSPCKNG 341

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RESULT 9
US-11-078-735-17
; Sequence 17, Application US/11078735
; Publication No. US20050261477A1
; GENERAL INFORMATION:
; APPLICANT: CHAMPION, BRIAN ROBERT
; APPLICANT: LENNARD, ANDREW CHRISTOPHER
; APPLICANT: MCKENZIE, GRAHAM JAMES
; APPLICANT: TUGAL, TAMARA
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS AND MEDICAL TREATMENTS
; TITLE OF INVENTION: COMPRISING NOTCH LIGAND PROTEINS
; FILE REFERENCE: 674525-2019
; CURRENT FILING DATE: US/11/078, 735
; PRIOR FILING DATE: 2005-03-10
; PRIOR APPLICATION NUMBER: PCT/GB03/03908
; PRIOR FILING DATE: 2003-09-09
; PRIOR APPLICATION NUMBER: PCT/GB03/03285
; PRIOR FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: PCT/GB03/01525
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: GB 0300234.2
; PRIOR FILING DATE: 2003-01-07
; PRIOR APPLICATION NUMBER: PCT/GB02/05137
; PRIOR FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: PCT/GB02/05133
; PRIOR FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: GB 0220912.0
; PRIOR FILING DATE: 2002-09-10
; PRIOR APPLICATION NUMBER: GB 0220913.8
; PRIOR FILING DATE: 2002-09-10
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 17
; LENGTH: 723
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-078-735-17

Query Match          4.5%; Score 85.5; DB 7; Length 723;
Best Local Similarity 28.6%; Pred. No. 7.4;
Matches 20; Conservative 10; Mismatches 23; Indels 17; Gaps 3;

QY 175 WTANRETYWGMATCSKELDNSSYFR-----ATCNDTGG-----PSQTNKC-----R 217
DB 272 WQCNCOBEGWGLFCNQDINCYCTHHKPCKNKATCTWTGQSYTCSGCRPGYATCELGIIDE 331
QY 218 CDKXKGANAG 227
DB 332 CDSPCKNGG 341

RESULT 10
US-10-512-109-9
; Sequence 9, Application US/10512109
; Publication No. US20050255546A1
; GENERAL INFORMATION:
; APPLICANT: KIRIN BEER KABUSHIKI KAISHA
; TITLE OF INVENTION: POLYPEPTIDE HAVING AN ACTIVITY TO SUPPORT PROLIFERATION OR SURVIV
; TITLE OF INVENTION: OF HEMATOPOIETIC STEM CELL OR HEMATOPOIETIC PROGENITOR CELL, AND
; TITLE OF INVENTION: FOR THE SAME
; FILE REFERENCE: 905W01OP1572
; CURRENT FILING DATE: US/10/512, 109
; CURRENT FILING DATE: 2004-10-21
; PRIOR APPLICATION NUMBER: US 60/376, 001
; PRIOR FILING DATE: 2002-04-26
; NUMBER OF SEQ ID NOS: 49
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 557
; TYPE: PRT
; ORGANISM: Mus musculus
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US-10-512-109-9

Query Match          4.4%; Score 82; DB 6; Length 557;
Best Local Similarity 24.3%; Pred. No. 11;
Matches 45; Conservative 31; Mismatches 65; Indels 44; Gaps 12;

QY 14 PSYKE--QAGYDNKKM-CSNGMTCAFPRLHLCNKNPNNNSNDSSKAKHD--LLAEVC 68
DB 44 FSLSDVQAEISGHHLCIPGYCTCTSE-----MEENLAHNSRMELESALHDSRALQAT 99
QY 69 MAATYBESIKTHYPK--DSK-----YQSDPFCMTMLARSPADIGDII-----RRDL 116
DB 100 LATYHG--IDDFQRLNDSERTLOEAFGAFEDLYQNTFRADLYVELRLYYRANTL 157
QY 117 YLGKKKKKQNGKETEREKLEBQKEIFPKIHDNL-----KQKEAQKRYNGDEDPN 166
DB 158 HL-----EETLAEFMAHLERLTKQHLPPDIDYDCGKQAEALRPF-GDA-PR 206
QY 167 FYKLR 171
DB 207 ELRLR 211

RESULT 11
US-10-491-096-190
; Sequence 190, Application US/10491096
; Publication No. US20050267020A1
; GENERAL INFORMATION:
; APPLICANT: FAURE, OLIVIER
; APPLICANT: KOSMATOPOULOS, KONSTADINOS
; TITLE OF INVENTION: POLYPEPTIDES DERIVED FROM INDUCIBLE HSP70 AND PHARMACEUTICAL
; TITLE OF INVENTION: COMPOSITIONS CONTAINING THE SAME
; FILE REFERENCE: 0508-1098
; CURRENT FILING DATE: US/10/491, 096
; CURRENT FILING DATE: 2004-03-29
; PRIOR APPLICATION NUMBER: PCT/EP02/10821
; PRIOR FILING DATE: 2002-09-26
; PRIOR APPLICATION NUMBER: FR 01402496.2
; PRIOR FILING DATE: 2001-09-27
; NUMBER OF SEQ ID NOS: 190
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 190
; LENGTH: 646
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-491-096-190

Query Match          4.4%; Score 82; DB 6; Length 646;
Best Local Similarity 20.1%; Pred. No. 13;
Matches 80; Conservative 63; Mismatches 163; Indels 92; Gaps 19;

QY 14 PSYKEQAG-----YDNKKMKCSNGMTCAFPRLHLCNKNPNNNSNDSSKAKHDL-- 63
DB 217 FEVSTAGDTHLGGEDFDNRVY-----NHFLAEFRKH-----KQISENKRVR 262
QY 64 LAEVCMAATYBESIKTHYPKYSKPGSDPFCMTMLARSPAD--GDIIG----- 113
DB 263 LRTACERAKRTLSSTQASIEIBSLYEGIDFYYSITR--FEENALDFRTLPVEKAL 321
QY 114 RDLVYGNKKKKON-----GKETEREKLEBQKEIF--KKIHDNLKDXEA-----QKRY 159
DB 322 RDAQL-DKQIHQDLVAVGSRIRPKIOKLQDFNGEINKSINPDEAVGAIVQAAIL 380
QY 160 NGDEDPN--FYKLREDWMTANRETYWGMATCSKELDNSSYFRATCNDTGGQPSQTNKC 216
DB 381 SGKSENVQDLLLDVPLSLGIETAGVMTVLIKRWTIIPKQTFQFTYSDNQGVLI 440
QY 217 RC-DKXGANAAGKPKADGVTIVPYFDVVPQYLRFEEMA----- 257
DB 441 QVEGERAMTKDNNLGKFEITGIPAPRGVPLEVTFDIDANGILNVAIVASTGKENK 500
QY 258 -----EDFCRKKKKKLLENLEKQC---RGKDKSDEYRYSRN-----GYDCEQTI---SRKG 302
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QY 1 PCKDKGKNDVDRFSYKQAGYDNKKKCSNGMTCAFRRLHLCKNKPNNNSDSKAK 60
DB 682 PCGCD--TNDICVGLCRQAGCD-----HVLN-----SKAR 710
QY 61 HDLIAEYCMAAKYGESIKTHYPKYDSKYPGSDPFM-----CTMLARSPADIGD--- 109
DB 711 RD-----KGVCGGNSCKTVAFTVHYGVNVTVRIPAGATNIDVROHFSFBETDDN 766
QY 110 -----IIRG-----RDLYGNKKKKQNGKET--ER---EKLEOKLKEIFK 144
DB 767 YLALSSSKGEFLNGNFVVTMAKREIRIGNAVERSGSETAVERNSTDRLEQEL--- 822
QY 145 KIHNLKDKQEAQKYNDEDEPNFY-----KLREDMWTANRETVGAMTSKELDSSYFR 199
DB 823 -----LQVLSVGLKYNPVRYSFNPIEDKPOQFYW--NSHGPWA--CSKPCGGERK 873
QY 200 ATCNDYGGPSQTHNKKCDK-DKGANAGKPRAGDGVTVFYFDVYPQYLRF---- 253
DB 874 LVC--TRESQTLVSDQRCRLPQGHITPECGTDCD-----LRMHVASRS 917
QY 254 -----BEMADPCKKKKKLEKQCRGKDKSDBYR 286
DB 918 ECSAQCGLYRTLDIYCAKYSRLDKTEKVDVDFCSHPKP-SNREK-CSGBCNVTGMRY 975
QY 287 -----CSRNGYCEQOTISRK 301
DB 976 SAMTECSKS---CDGCTQR 992

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RESULT 15
US-10-995-561-556
; Sequence 556, Application US/10995561
; Publication No. US2005022054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; FILE REFERENCE: CL001559
; CURRENT APPLICATION NUMBER: US/10/995,561
; CURRENT FILING DATE: 2004-11-24
; NUMBER OF SEQ ID NOS: 85702
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 556
; LENGTH: 4655
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-995-561-556

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Query Match 4.4%; Score 82; DB 6; Length 4655;  
 Best Local Similarity 20.4%; Pred. No. 1.3e+02;  
 Matches 82; Conservative 41; Mismatches 130; Indels 148; Gaps 26;

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QY 19 QAGYNKKMKCSNGMTCAFRRLHLCKNKPNNNSDSKAKHDLIAEYCMAAKYE 74
DB 2823 QSGY---TKCHNSNICIP--RVLICDGDNDGCDNSDENPTYCTTH-----TCSSEFQC 2871
QY 75 --GESIKTHY--PKYDSKYPGSDFP--MC-----TWLARSF--ADIGDIRGRDLYGNKK 123
DB 2872 ASGRICIPQHWYCDQETDPCFASDEPASGHSERTCLADEFKDGGRCIPSEWICDGDND 2931
QY 124 KONGETEREKLEQKLKEIPKKIHNLKDKQEAQKYNDEDEPNFYKLREDMWTANRETVW 183
DB 2932 GDMSEDEKHHQOQ-----NONCSDBEF--LCVNDPRPDRRCIPQSW-----VCD 2973
QY 184 GAMTSKELD--NSSYFRATCNDT-----GQG-----PSQTHNKR----- 217
DB 2974 GVDCTDGDYDENQNCCTRRCTSENFTCGGLCTPKIFRCDRHNDGCDYSDEKGLYOTCQ 3033
QY 218 -----CDKDKGANAGKPRAGDGVTVFYFDVYPQYLRFEMADPF 260
DB 3034 QNGFTCGNGRCISKTFVDEBN-----DCGDSDBELM--HLCHTP-----EPT 3074

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QY 261 CRKKKKLEK-----LEKCRG-----KDKSDEYRYSRN-----GYDCEQOTIS-- 299
DB 3075 CPHEFKCDNGRCIEMMKLCNHLDDCLDNDSE--KGCINECHDPSISGCHNCTDILTSP 3133
QY 300 -----RKGVYRMG-----KGTDCRFAC-----GSY 320
DB 3134 YCSGPGYKLMSDKRTCVIDIDECTEMPVCSQKCNVIGST 3174

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Search completed: December 29, 2005, 23:40:23  
 Job time : 3.14866 secs

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